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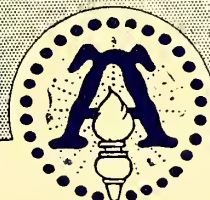
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JANUARY 29, 1927.

Vol. CVI.

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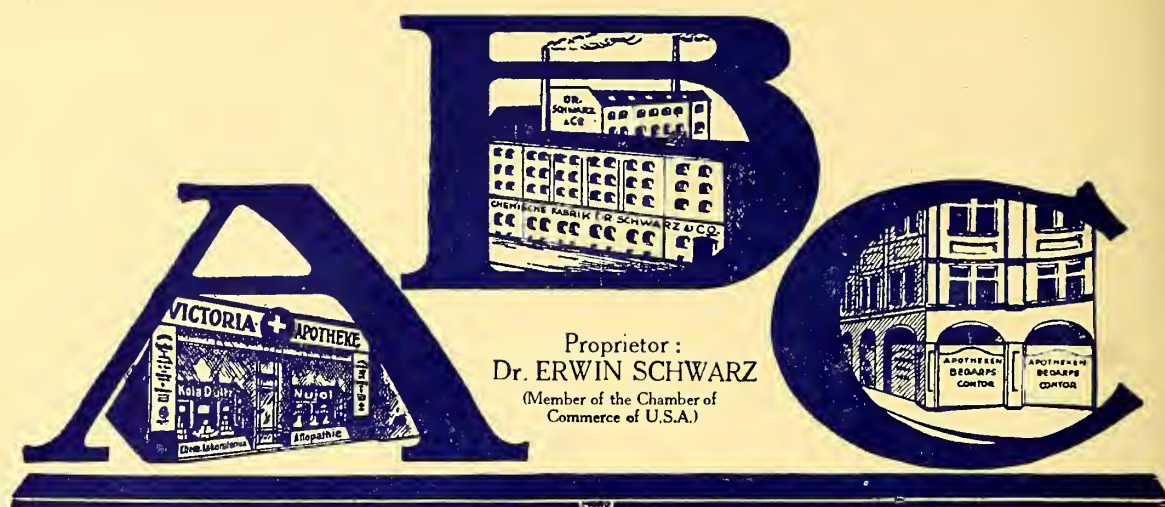
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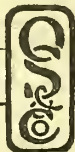
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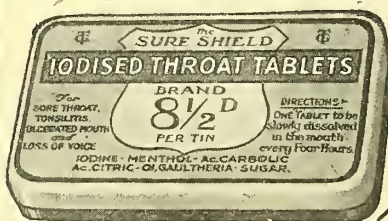
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Maw's Page



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per dozen
6/-



4/3174
per dozen
8/-

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4/3172	Ditto, Pocket, each in box ..	per doz.	7/6
4/3172A	Ditto, complete with inhalant in box	per doz.	16/-
4/3173	Ditto, Vest-Pocket, each in box	per doz.	4/6
4/3173A	Ditto, ditto, M.P. (Menthol and Pine)	per doz.	6/-
4/3174	Menthol, each in metal case ..	per doz.	8/-
4/3174A	Ditto, Compound Menthol, in card case	per doz.	5/6
4/3174B	Bottles of inhalants—Menthol, Eucalyptol and Pine for re-charging any of the above Inhalers	per doz.	6/-

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.





"Your Customers for Horlick's"

The Business Man.

Keen on making a name for himself, both in business and sport, but in doing it he expends a vast amount of energy. Suggest that he keeps a bottle of Horlick's by him ready to convert its ample, easily-digested nourishment into new energy as he needs it.

Price-protected,
and sales directed through Chemists.



Made in England by

Horlick's Malted Milk Co., Ltd., Slough, Bucks.

5

PURE MALT EXTRACT

with *FINEST*

NORWEGIAN COD LIVER OIL

The Brand that does not separate nor crystallize.

Your own name and address on labels. In English jars, etc. Direct from the actual manufacturers.

THE BRITISH DIAMALT COMPANY
SAWBRIDGEWORTH - - - HERTS.

INSULIN



An exceptionally pure and satisfactory Product.
Prepared under Medical Superintendence.
Standardised by careful Physiological Tests.
Bacteriologically examined for sterility.
Issued under authority of the Medical
Research Council.

Contains 20 UNITS per c.c.

5 c.c. BOTTLES $2/8$ each
10 c.c. „ $5/4$ „

Subject to usual Distributors' discount.

MANUFACTURED AND STANDARDISED IN THE RESEARCH LABORATORIES OF

EVANS SONS LESCHER & WEBB, LTD.
LIVERPOOL & LONDON

THE 1927 WHITAKER CAMPAIGN



LOOK OUT for this beautiful Medallion picture. It will be a special feature of our big Advertising Campaign and will link up the whole series of forceful Advertisements which are planned to create a big demand for LUTON Straw Hat Dyes and AURORAL Cold Water Dyes during the season.

In every way the 1927 Whitaker Publicity Campaign, not excepting some delightful showcards in arresting colours, will be the finest effort we have ever made to assist the chemist and create an extensive demand for the Whitaker Products.

Will you co-operate with us by going through your stocks and ordering up a representative supply of all colours both in "Luton" and "Auroral." Don't delay—*do it to-night!*

AURORAL
COLD WATER DYES

Just the thing for
Dance Frocks and
Dainty Lingerie.

Good trade should be done in this line now by recommending it for this purpose to your customers. Recognised as the finest cold water dyes in the world for delicate and costly fabrics. Good results obtained even at the first trial. A certain seller.

LUTON HOT-WATER FABRIC DYES

The best hot-water dyes for all materials, giving perfect results with the minimum of trouble. As with all other Whitaker products, they show a good profit.

SPECIAL OFFER.

Send us an order for 1 gross Assorted AURORAL COLD WATER DYES. Price £2 8s. less 5% Cash Discount. Retail Price £3 12s., showing more than 50% profit on outlay, and we will send you

FREE OF ALL COST

a splendid

COUNTER CABINET

in Sheraton Style Art Metal containing pigeon holes for each separate colour.

On the front is a beautiful design in ten colours. This cabinet is the finest production ever offered to the Trade, and is a distinct ornament to any shop. Post your order to-day and secure this splendid Sales Aid and Stock Keeper in time for the new Season Trade.

LUTON STRAW HAT DYES

The outcome of 45 years' accumulated experience in the manufacture of household dyes. This series comprises all colours and is in demand practically all the year round. They are all highly efficient dyes and appeal to every woman on economical as well as fashionable grounds. Supplied in dull or glossy series.

VELT THE NEW CLEANER

A cleaning preparation for removing stains, grease, dirt, etc., from clothing, upholstery, curtains, etc., and renovating them. VELT is a non-inflammable liquid and is supplied in screw tins of which three dozens are contained in an attractive outer. A new Whitaker product, but nevertheless one which is all ready selling well. It is now available in 5-oz., 10-oz., and 20-oz. tins for the convenience of bigger users.

ALL CASES AND CONTAINERS FREE.

WHITAKER & CO., Dye Specialists for Chemists, **KENDAL**

Telegrams: "Dullette, Kendal."

(Established 1878.)

Telephone 214.

London Office and Showrooms: 16-18 Beak Street, REGENT STREET, W.1 Telephone: Regent 3825

Something to crow about!

Waterglass

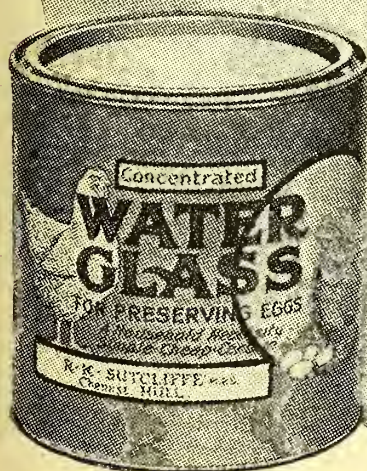
AYRTON'S

MAKE A WINDOW SHOW
and bank the profit

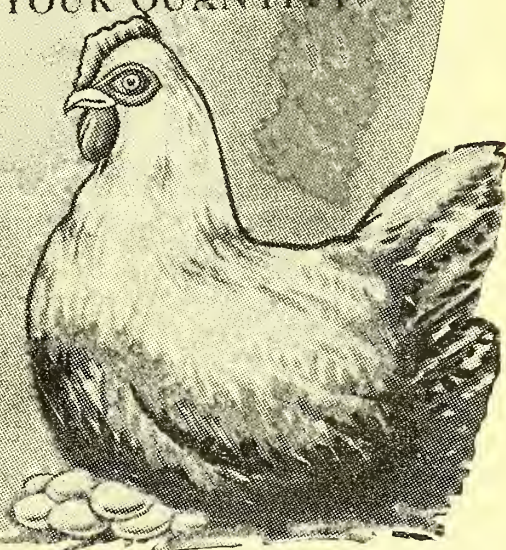
Not 'Good in parts' but finest at every point.

- 1.—New methods of filling and sealing.
- 2.—All-tin, lever-lidded containers with soldered seams.
- 3.—Choice of three styles, each with chemist's own name facilities.
- 4.—No charge for standard cases, which hold 6 doz. 1-lb. or
3 doz. 2-lb. tins.
- 5.—Discount of 5% for gross lots, if a c paid at one month.
- 6.—Plentiful display material.

GET AYRTON'S PRICE
FOR YOUR QUANTITY.



Ayrton,
Saunders
& Co. Ltd.
Liverpool



Natural Mineral Waters.

- ☐ We are Agents for all the leading Natural Mineral Waters, importing them regularly throughout the Season from all parts of the World, when it is possible.
- ☐ Should you be asked for a Water with which you are not conversant, please apply to us, as we may have it in stock; or we could procure at short notice, if obtainable.
- ☐ Chemists should write for our special list of net prices. Most of the well-known Waters are on the P.A.T.A. protected list, and show the retailer good profits. Goods delivered direct to Client's own Customers if desired.

SOLE AGENTS FOR

VICHY-CÉLESTINS

(And the other State Springs of Vichy).

*Æsculap
Aix-les-Bains
Apenta
Apollinaris
Bilin
Bourboule, La
Carlsbad
Carlsbad Sprudel-Salt
Chatel Guyon
Cheltenham Spa
Condal
Contrexéville
Coulsworthy
Ems Water
Ems Salt and Pastilles
Evian-Cachat
Fachingen
Giesshubler (Mattoni)
Hunyadi János
Insalus
Kissingen
Kronenquelle
Leamington Spa
Levico
Malvern (Alpha)*



*Mont Dore
Montmirail
Montreux
Perrier
Plombières
Pluto
Poland
Purgos
Royat
Rubinat
St. Galmier
Selters
Sulis
Vals
Vichy-Célestins
Vichy Hôpital
Vichy Grande Grille
Vichy Pastilles
Vichy Salts
Villacabras
Vittel
Wiesbaden
Wildungen
Woodhall Spa
Wychia*

Show cards, dummy bottles, and pamphlets will be forwarded carriage paid on application.

INGRAM & ROYLE, LTD.

BANGOR WHARF, 45 BELVEDERE ROAD, LONDON, S.E.1.

Telephone: HOP 4343 (2 lines).

Telegrams: "INGRAM ROYLE, WATLOO, LONDON."

LIVERPOOL: 19 South John Street.

BRISTOL: Bath Bridge.

Telephone: Bank 4528. Telegrams: "CELESTINS, LIVERPOOL."

Telephone: 1113. Telegrams: "SPRUDEL, BRISTOL."



What you can do with a

SINGLE OUNCE of "DISTOL" OTTO

"Distols"

for

QUALITY

with

ECONOMY

and

CONVENIENCE

Make 1 pint Choice Perfume

This is of "De Luxe" strength (1 in 40) and may be diluted to 1 in 80 for "triple" strength. Samples of perfumes prepared from any six "Distols" to the "De Luxe" recipe, together with a list giving actual cost at various dilutions post free on request.

Perfume 4 lbs. Bath Crystals

Thirty minims are sufficient and help to produce a most pleasing and profitable article.

Perfume 1 lb. Cold Cream

Strength 1 in 80. Many Pharmacists however prefer to use only half this proportion.

Perfume 1 lb. Vanishing Cream

There are quite a dozen "Distols" suitable for this purpose. Write for list.

Perfume 1 lb. Tooth Powder

Thousands of tins of tooth powder perfumed with "Distol" Red Rose have been sold.



"DISTOLS" are ideal for your own proprietary perfumes and distinctive toilet products.

Please state your requirements and we will send formulæ and suggestions

THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

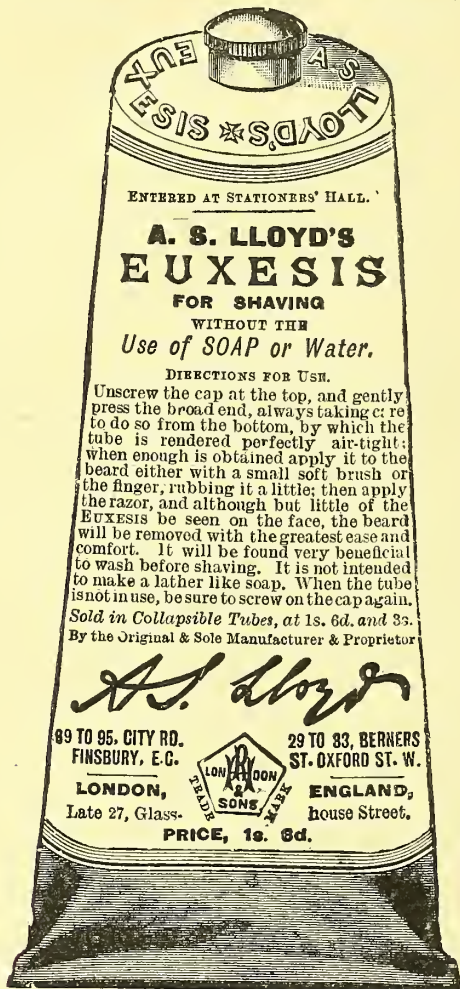
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A. S. LLOYD'S EUXESIS

(THE GENUINE).

For Shaving without Soap, Water, or Brush.



Sold by all Perfumers and Chemists throughout the world.

R. HOVENDEN & SONS having purchased, under an administration suit, the business of the late A. S. LLOYD, with the Receipt, Trade-Mark, and Goodwill of the celebrated Euxesis, the Trade are cautioned that the original and genuine Euxesis is now manufactured at our Factory ONLY and may be obtained at either of our Warehouses.

PRICES ON APPLICATION.

NOTICE.—THE GENUINE A. S. LLOYD'S EUXESIS bears a label printed in BLACK only on a Yellow ground, with our Trade Mark at the bottom, as Illustration.

Proprietors: **R. HOVENDEN & SONS, LTD.**
LONDON: 29-33, Berners Street, W.1.; and 89-95 City Road, E.C.1

THE FLAMINGO OBLIQUE, REFILL, LIP-STICK.

The ONLY Refill Lip-stick.

BRITISH MADE. THE WORLD'S BEST VALUE. PATENTED.

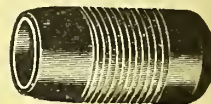
Wholesome Throughout.

ABOLISHES DRY or CHAPPED LIPS.

DAINTY,
NEAT,
OBLIQUE,
UNIQUE.

A QUICK
SELLER.

ENABLES
VARIATION
OF
CONTACT
AREA.



SELF-MOULDING.
Permanent container with
Refill. Gives best and
most economical service.



The
ONLY
Obliquened
Lip-stick.



Rotary Propelling End. A Coloured Refill Carton.

Colour of Propelling End identifies Salve.

Composition containers in pleasing colours.

Very best quality, smooth, pleasantly flavoured and discreetly perfumed emollient Salve, for reviving the softness of the lips, available in four shades:—"Cerisine," dark; "Carminine," light; "Orangeine," transferring Rose (UNIQUE); and "Ivorine," white, for MOTORISTS, SMOKERS, etc.

SERVES EVERYBODY.

PRICES (P.A.T.A.): — Home Sale, Home Retailers', Home Wholes' & Exporters', each per doz.

Complete & Sealed:	2/6	20/-	UPON ENQUIRY.
Single, Sealed & Cartoned Refills ..	9d. & 6d.	6/- & 4/-	
Sealed Refills in Cartoned Sets of 5	3/3 & 2/3	26/- & 18/9	

EACH REFILL SAVES FROM 6d. TO 5/-.

STRIKING & ARTISTIC SHOWCARDS, etc.

SPECIAL TERMS FOR WINDOW DISPLAYS.

Demonstrations Being Given.

Exhibiting at **BRITISH INDUSTRIES FAIR, 1927 (STAND No. A.42.)**, and at **THE DRAPERY EXHIBITION, 1927 (No. 4, Wall Space, Main Gallery).**

On 11th December, 1926, we Awarded **TEN GUINEAS** to the well-known North London Chemists, Cooper's, of 93 Tottenham Lane, Hornsey, for having made, gratuitously and upon their own initiative,

A FLAMINGO WINDOW DISPLAY.
We always recognise such Services.

FLAMINGOES, LTD.

FLAMINGO HOUSE, (Dept. C.D.4.),
CHAPEL STREET, MOORGATE, LONDON, E.C.2.

Telephones: Inland Telegrams:
Clerkenwell 7661 (3 lines). "Flamingoes, Barb, London."
Cables: "Flamingoes, London."

A. S. LLOYD'S EUXESIS.

For Shaving without Soap, Water, or Brush.

CAUTION.

The Labels on GENUINE EUXESIS bear two signatures—
A. S. Lloyd in Black Ink, and that of his Widow,
Aimée Lloyd, in RED. Refuse any other.

*Sole Manufacturers and
Proprietors :*

AIMEE LLOYD & CO.

**23 PANTON STREET (formerly named Spur Street)
HAYMARKET LONDON, S.W.**

N.B.—When ordering from Wholesale Houses write LLOYD'S EUXESIS (WIDOW'S).

MERCOLIZED WAX

— : for the Complexion : —

and

STALLAX

— : a Shampoo : —

TWO substantial and well-advertised lines which show a handsome profit to the Retailer, and, moreover, may be stocked fearlessly owing to the Manufacturers' most liberal Sale or Return Guarantee.

Both are obtainable in two sizes, and their reputation and sterling value assure a steady turnover.

Order through your Wholesaler, or direct from :

DEARBORN (1923) LIMITED
37 GRAY'S INN ROAD, LONDON, W.C.1.

Spurway's BRILLANTINES AND FLORAL OILS

are not mineral oils simply per-
fumed with cheap essential oils
and doped with synthetics.

**THEY ARE UNIQUE IN
BEING PERFUMED BY
DIRECT CONTACT WITH
THE ACTUAL FLOWERS**

by our special "Enfleurage"
process, carried out in our own
factories at Cannes-Grasse, from
the freshly gathered flowers.

The exact odours of the flowers
are thus faithfully reproduced,
and the resulting oils produce no
rank odour when applied to the
warm scalp.

In assorted odours:—

*Violette, Lilas, Rose,
Jasmin, Muguet, &c.*

They are sent out artistically
finished and the bottles are fitted
with either sprinklers or glass-
top corks, as desired.

Size 2a .. 9/- per dozen
,, 3a .. 16/- ,,

SPURWAY ET CIE.
LIMITED.

89 GREAT EASTERN ST., LONDON, E.C.2

Telegrams: "Neroli, London."
Telephone: Bishopsgate 1372.

Factories & Distilleries: Cannes-Grasse, Riviera.
Technical Laboratories: Paris.

NEW YORK.

KINGSTON (ONTARIO).

OZOLIN DENTAL SPECIAL SHAMPOO CREAM 14 day OFFER POWDER

Our recent extensive advertising cam-
paign has resulted in a large demand for

Ozolin Dental Cream

and

Ozolin Shampoo Powders

and to induce every chemist to place
ONE trial ORDER we will send:—

1 Doz. Ozolin Dental Cream
Selling Price 1/3

and

1 Doz. Ozolin Shampoo Powders
Selling Price 6d.

FOR - 9/6 Carriage
Paid

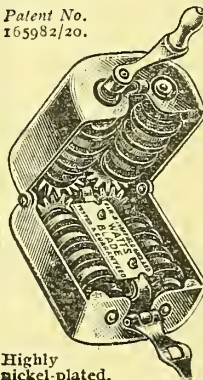
and if order is received within 14 days
will give:—

FREE 6 Tubes Ozolin Dental Cream
6 Ozolin Shampoo Powders.
31/6 selling value for 9/6

CASH WITH ORDER.

OZOLIN PERFUMERY Co.
60 & 62 ROCHFORD ROAD, SOUTHEM-ON-SEA.

Patent No.
165982/20.



Highly
nickel-plated.

**A REMARKABLE
BRITISH INVENTION.**

THE

"SPIRO"
**SAFETY RAZOR BLADE
SHARPENER.**

Every user of the "Watts" Safety Razor
Blades is a potential purchaser.

STRONG AND SIMPLE.
No troublesome fixing. Drop blade on
two pegs, close box, turn handle and get
a super-keen blade in a moment.

Retails at 21/- each.

Allowing 50% profit on cost for the dealer.

Sole Manufacturer:

JOHN WATTS, Lambert Works, SHEFFIELD.
London Office and Showroom:
24, Redcross Street, E.C.1.

SYNTHETIC OTTOS

VERY ECONOMICAL ON ACCOUNT
OF THEIR STRENGTH

Suitable for all Toilet Preparations

	Per oz.		Per oz.
CARNATION	7/6	MELOTA	10/6
HYACINTH	7/6	ORANGE BLOSSOM	7/6
JASMIN	9/-	ROSE	12/6
LILY OF THE		SWEET PEA	12/-
VALLEY	7/6	PARMA VIOLET	10/6

E. H. BUTLER & SON MANUFACTURING
CHEMISTS —
Humberstone Gate — LEICESTER

MOUSLEY

out again with
A GREAT NEW SELLER

OCTAGONAL LAMBPUF

(Model L.P.26, in new material of wonderful colourings)

RETAILS AT 1/3

Complete with Powder Refill and Gauze Discs.

NEW REFILLS FIT ALL MODELS AND ARE SUPPLIED IN
DIFFERENT OLD-WORLD PERFUMES TO SUIT ALL TASTES.

Lilac, Carnation, Lily of the Valley, Parma Violet, Honeysuckle, Otto of Rose, in each of the following colours: Natural, Cream, Rose, White, Sunburn. All retail 3d. each.

Usual Trade Discounts from all Wholesalers or direct from

FRANK MOUSLEY Wilderness Works,
SHEEN, LONDON, S.W.14

West End Office—38 OLD BOND STREET, W.1.

The World's Best Hairbrush

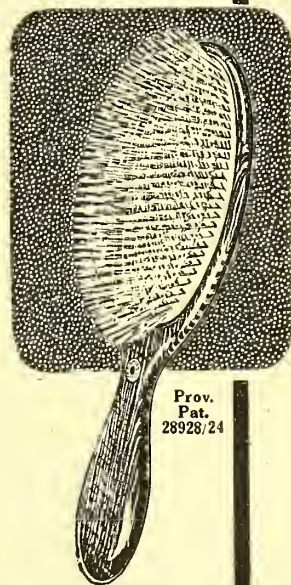
means quicker sales and
bigger profits for you

Why? Because it has more selling points than any other brush in the world. Because it meets to a greater degree than all others the modern woman's need for deep, penetrating hairbrushing **plus absolute cleanliness.**

Consider for a moment the strength and toughness of the bristles and the resiliency of the rubber pad in which they are set. Is there any other brush more capable of getting right down to the roots of the hair than the "Klenly" Brush? Consider also the tempting beauty of the various colours and designs.

And this is not all. Both the bristles and the pneumatic pad are **white.** Because of this the brush is always kept clean; its whiteness instantly betrays any dirt or dust that may come from the hair. The air vent, too, is placed in such a position that it's the easiest thing in the world to clean the brush.

These then are the reasons why **you** should stock the "Klenly" Hairbrush—why you should take **your** share of the extra-generous margin of profit that we as the **actual manufacturers** can afford to allow you.



Prov.
Pat.
28928/24

RIGBY'S
Klenly
HAIR BRUSH

RIGBY, BATTCKOCK LTD., 28 MUSEUM STREET, LONDON, W.C.2.
Protected in U.S.A., CANADA and FRANCE.

Write at once for special folder giving full details and prices of the various designs and see for yourself what attractive opportunities the "Klenly" Brush affords for profitable business.

MAKING GREAT STRIDES



*British by Birth
and Upbringing*

MYATT

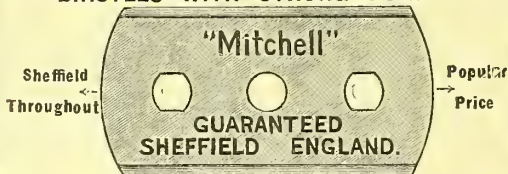
PATENT DAYMARKED Safety Razor Blades

(For Gillette Type Razors only)

W. J. MYATT & CO., Ltd. - - Graham Street, BIRMINGHAM

EVER since shaving became a home pastime the wisdom of resting the shaving edge has been recognised. But Myatt Blades are the **only** Safety Razor Blades which embody this principle; they are **daymarked** with the days of the week so that the edges may be rested in rotation and their keenness prolonged. No wonder they are making great strides in popularity! They are advertised, they sell readily, and the discount is good. Are you selling them? Your wholesaler can supply.

BRISTLES WITH STRONG POINTS.



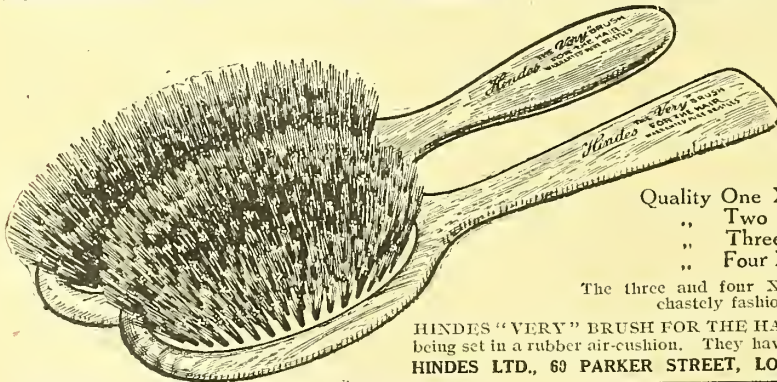
Lasts Longer Wonderful Edge Every Blade Guaranteed
THE "MITCHELL" BLADE
 1/6 (Made in Gillette and Autostrop Patterns) 3/-
 for **50% Profit for You.** for
 6 WE SUPPLY 12
TESTIMONIALS THAT TELL. SHOWCARDS THAT SELL.
R. S. MITCHELL, Unity Works, Langsett Rd., SHEFFIELD.

CHAMOIS. SPONGES.
 HOUSEMAIDS' GLOVES.
 CHAMOIS PADS.
 Send for Price List
John T. Barradell,
 23, Blackfriars Street, Manchester
 Phone: Manchester Central 2785. Wires: Sponges, Manchester

**TALCUM POWDER
FACE POWDER
VANISHING CREAM**

Any Grade.
Any Colour.
Any Perfume.
Any Quantity.

All Merchandise in Bulk or in your own Containers.
 The O-PINE-O Manfg. Co. Ltd., Montague Rd., Hornsey, London, N.8



**HINDES
"VERY"
HAIR BRUSH**

Quality One X	Sold at 7/6d. each.	TRADE PRICE 33 1/2%
Two XX	10/6d.	
Three XXX	15/-	
Four XXXX	18/6d.	

The three and four XXXX grade is made in Ebony or Rosewood chastely fashioned in both oval and circular bodies.

HINDES "VERY" BRUSH FOR THE HAIR is guaranteed pure bristles, the multiple tufts being set in a rubber air-cushion. They have been known to the trade for nearly 40 years.
HINDES LTD., 69 PARKER STREET, LONDON, W.C.2. :: Works: BIRMINGHAM

TRADE Gillette MARK

KNOWN THE WORLD OVER
U.S.A. BLADES *Newest London Stock.*

1 Box - 29/- 3 Boxes at 28/6 {These prices do not apply
5 Boxes at 28/- 10 Boxes at 27/6 for Irish Free State.

GILLETTE RAZORS
Original 25/- Silver-plated
Pocket Set, 1 blade 3/6.
Original 21/- Silver-plated
"Standard" Set, 1 blade 2/6
Gold-plated Models, 1 blade 3/-

VALET

Blades 36/- Box. 3 at 34/3
2/6 Razors ... 22/- doz.
6/- "C" Model, No. 101 3/4 ea.
6/- do. No. G 101 4/- ea.
7/6 Model, No. 55 Set 5/- ea.
21/- Models ... 14/- ea.
2/6 "B" Qual. Strop 20/- doz.
1/6 "C" "Dressing 8/6
6d. Strop "Dressing 4/3
Shaving Cream ... 8/6
Utility Knives ... 8/6

ALL PRICES ARE NETT
FOR C.W.O. or C.O.D.
All your Razor and Blade
requirements from—

S T A M B O I S
SAFETY RAZOR SERVICE
7 Charterhouse Buildings, London, E.C.1
Phone: Clerkenwell 3518.
34 Call Lane, LEEDS. Phone: 25946.
11 Fishamble St. 60 Donegall St. 52 Howard St.
DUBLIN. BELFAST. GLASGOW.
Phone: 4625. Phone: 7045. Phone: Central 1159.
STOCKS KEPT AT THESE DEPOTS.

DARWIN

Gillette Auto Ever-Ready Types
3/- per 4/6 (10 blades).
1/6 per 2/3 (5 blades).
29/3 Nett Cash per box.

EVER-READY SHAVING
CREAM with Free Razor and
1 Blade. 13/- per doz.
Reduced prices for Quantities.
BLADES 2/8 doz. 31/- gross.

SOUPLEX for Gillette
Type Razors.
1/3pkt.(5) 10d. 2/6pkt.(10) 1/8
19/- Box (120) Nett Cash.
10 Box lots 17/-

DURHAM-DUPLEX
SPECIAL JAN.-FEB. OFFER.
12 x 2/6 Pkts. (blades only) 17/3

ROLLS RAZORS
25/- "Popular" Model 15/10
30/- "Standard" " 19/-

THE FLAMINGO UNIQUE BRUSH-COMB.

BRITISH MADE.

PATENTED.

THE BIG SURPRISE.
A NEW INDUSTRY & ART.

The ONLY article of its kind.

Supersedes separate brushes and combs, cleaning combs,
curlers, wavers, lotions and dyes—dressing, training and
vivifying the hair multipotently, harmlessly and naturally.

A Modern Hairdressing Necessity.

AN ARTICLE TO HAVE WITH ONE, AND TO
HAVE KEPT AT THE HAIRDRESSER'S FOR ONE.

A boon to the Waved. Hygienic. Vest-Pocket Size.
Durable. Universally useful and convenient anywhere.
An inexpensive article, with best bristles.

Adjusted, Separated, Assembled and Cleansed with ease—therefore
ever-clean. Either portion replaceable. In pleasing colours.

PREVENTS INFECTION.

"The World's Best Value."



Front View, showing sliding action.

The only article that combs and brushes
simultaneously, and automatically:—

Removes Tangles, Dandruff, etc.; Massages and
Invigorates the Scalp; Revives and Stimulates
Growth and Pigment of Hair; Glossifies the
Hair; and Revives and Maintains Waviness.

THE ONLY MEANS OF BRUSHING ONE'S HAIR IN PUBLIC.
Indispensable for all indoor and outdoor life of
children and grown-ups. Essential to veterinarians
and animal lovers.

WORTH A GUINEA.

PRICES:—	Home Sale, each.	Home Retailers', per doz.	Home Wholesale, salers' and Exporters'.
Complete, without Wallet	2/6	21/-	
Complete, in handsome Wallet	3/6	27/6	
Replace Brush, separately	2/-	17/-	
Replace Comb, separately	6d.	4/6	

UPON ENQUIRY.

The USUAL HAIR BRUSH alone, apart from all its disadvantages, COSTS MUCH MORE.

A QUICK SELLER.

STRIKING AND ARTISTIC SHOWCARDS, etc.

SPECIAL TERMS FOR WINDOW DISPLAYS.

Demonstrations being given.

Exhibiting at **BRITISH INDUSTRIES FAIR**,
1927, (STAND No. A.42.), and at **THE DRAPERY**
EXHIBITION, 1927 (No. 4 Wall Space, Main Gallery).

On 11th December, 1926, we Awarded **TEN GUINEAS** to
the well-known North London Chemists, Cooper's, of 93
Tottenham Lane, Hornsey, for having made, gratuitously
and upon their own initiative,

A FLAMINGO WINDOW DISPLAY.
We always recognise such Services.

FLAMINGOES, LTD.

FLAMINGO HOUSE, (Dept.),
CHAPEL STREET. LONDON, E.C.2
MOORGATE.

Telephones: Inland Telegrams:
Clerkenwell 7661 (3 lines). "Flamingoes, Barb, London."
Cables: "Flamingoes, London."



MAGNUS,
MABEE & REYNARD
INC.

AMERICAN ESSENTIAL OILS

BAY	SPRUCE
CEDARLEAF	TANSY
CEDARWOOD	ERIGERON
PEPPERMINT	SPEARMINT
PETITGRAIN	WORMSEED

BALSAMS

ADDRESS:

MAIN SALES OFFICES
32 CLIFF STREET, NEW YORK, U.S.A.

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OLD STRAND CHEMICAL & TRADING CO., Ltd.
Audrey House, Ely Place - LONDON, E.C.1

Telegraphic Address: "CRESSWELL, HOLB., LONDON."

Telephone: No. 1432 Holborn.

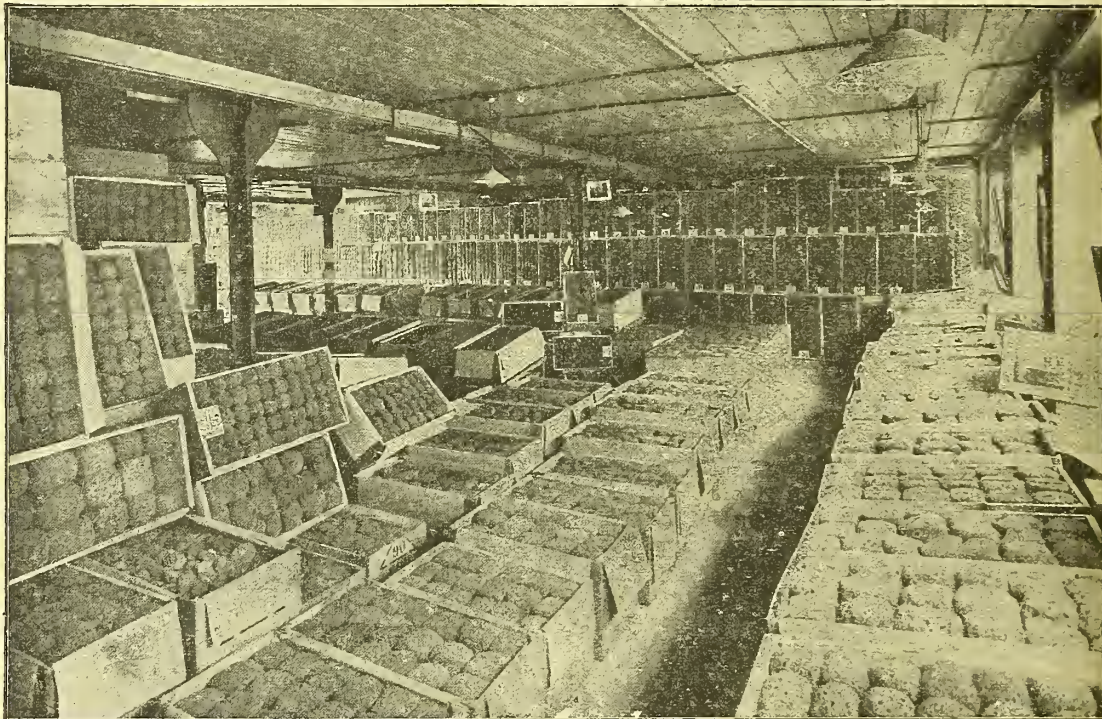
THE SPONGE HOUSE

INTERNATIONAL SPONGE IMPORTERS, LIMITED,
CRESSWELL BROTHERS BRANCH

Sponge Importers, Exporters and Merchants, and Chamois Leather Dressers,

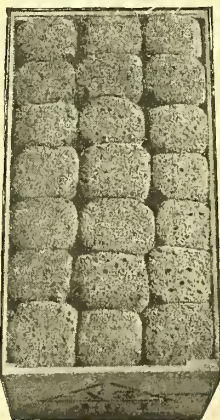
18 and 19 RED LION SQUARE (New Warehouses and Steam Bleacheries, 45, EAGLE STREET) LONDON, W.C.

WITH THE LARGEST STOCKS OF ALL SPONGES IMPORTED DIRECT FROM THE FISHERIES AT LOWEST PRICES.



BUYERS ARE INVITED TO CALL AND INSPECT OUR LARGE AND VARIED STOCKS, AND THEY WILL CONVINCE THEMSELVES THAT THEY ARE DEALING IN THE "CHEAPEST MARKET"

UNBLEACHED MEDITERRANEAN SPONGES in Original Cases



HONEYCOMB.

Extra Choice. Finest
 Texture and Shape.
 The Pick of all the
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Pieces in Case.	Average Price per Piece.
300 Toilet at	9d.
250 " "	1/-
200 " "	1/6
160 " "	2/-
140 " "	2/6
120 " "	3/-
100 " "	3/6
90 Medium Bath	4/6
80 " "	5/6
72 " "	6/6
60 " "	7/6
45 Large	8/6
30 " "	10/6

HONEYCOMB.

Toilet & Bath.

Good 2nd Quality.

Pieces in Case.	Average Price per Piece.
270 at	6d.
180 " "	9d.
170 " "	1/-
160 " "	1/6
140 " "	2/-
120 " "	2/6
110 " "	3/-
90 " "	3/6
80 " "	4/-
75 " "	4/6
70 " "	5/-
65 " "	5/6
60 " "	6/6

FINE TURKEY

SOLIDS.

SELECTED
SHAPES.

1st Quality.

	Average Price in Case. Piece
Nursery 200 at	1/-
Toilet 150 " "	1/6
" 100 " "	1/9
" 100 " "	2/-
" 80 " "	2/6
Bath 50 " "	3/-
" 36 " "	4/-
" 24 " "	5/-



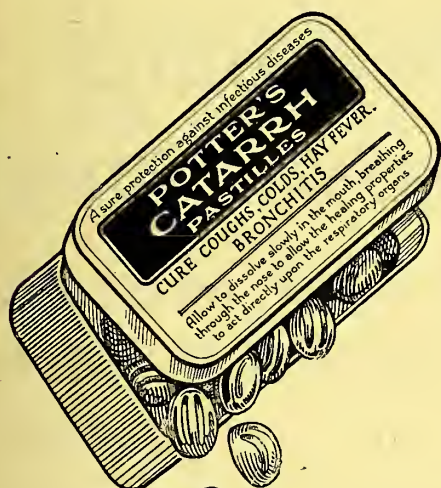
LOOSE GOODS DEPARTMENT.

SPONGES IN SMALL PACKAGES. Fine Turkey. Fine Egyptian and Honeycomb. In 1st, 2nd and 3rd Qualities, Bleached or unbleached (state which in ordering). On strings of 1 dozen pieces, or loose in bags. At per doz.: 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s., 30s., 36s., 42s., 48s., 54s., 60s., 66s., 72s. Bleached Cuban. At per String or Dozen. Wool, Grass, Yellow and Fine. 1s., 2s., 3s., 4s., 6s., 9s., 12s., 15s., 18s., 24s.

NEW VELVET HONEYCOMB. Soft, Durable and large for money. Suitable for Toilet and Bath purposes.

PRICES—Cut Shapes 3s., 4s., 6s., 9s., 12s., 15s., 18s., 21s., 24s. per dozen.
 Natural Shapes 4s., 6s., 9s., 12s., 15s., 18s., 21s., 24s., 30s., 33s., 36s.

" Strongly recommended where an inexpensive Toilet and Bath Sponge is required. "



POTTER'S CATARRH PASTILLES

clear the
Bronchial Tubes

RETAIL
1/3 P. A. T. A.
PER DOZ. - 11/-

Advertised
Everywhere

Attractive Show Matter.



POTTER & CLARKE, Ltd.

60/64 Artillery Lane, LONDON, E.1.

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MANCHESTER - 24 LUNA STREET, GREAT ANCOATS.

The all-the-year-round Catarrhal Specific

Sales that always keep at winter-high level because our Advertising is consistent and demand is steady from January to December

The very nature of Catarrh makes it inevitable that the demand for Velocium, the great Catarrhal Specific, should keep at its winter-high level throughout the year.

Catarrh is aggravated by Influenza and colds in winter time—by hay fever and chills in warmer weather. No catarrhal subject who is affected by changeable weather or seasonal epidemics can go safely through any month without remedial and protective measures always at hand.

Velocium is the proved Catarrhal Specific, whether the condition is the result of winter cold troubles or summer hay fever. Velocium not only attacks the Catarrhal germ in its malignant state—it actually removes from the system the mucus on which the germ feeds. Thus relief is complete and permanent; and it is *immediate*. The rapidity with which Velocium acts is one of the secrets of its extraordinary effectiveness.

All-the-year-round advertising bringing these facts constantly before your customers will bring you all-the-year-round profitable business. There is no "close season" for Catarrh, and Velocium is the one *proved* Catarrhal Specific.

Retailers would be well-advised to push Velocium during the latter winter months—for this winter trade will establish goodwill destined to stand them in good stead during the summer months' demand.

"VELOCIUM

Catarrhal Specific

Sole Distributors: PENNEY & CO., LTD., 16-18 Beak St., Regent St.

A window display Bonus that is worth the retailer's keenest consideration——

To every pharmacist who is prepared to stock and display Velocium, a generous bonus offer is made that represents an exceptional margin of profit on every sale

PARCEL "A"

Retail value, £2 2s., containing :— $\frac{3}{4}$ dozen 3s. size ; $\frac{1}{4}$ dozen, 5s. size. This parcel includes a Bonus of one 3s. size, representing a profit on return of $27\frac{1}{2}$ per cent.

PARCEL "B"

Retail value, £4 4s., containing :— $1\frac{1}{2}$ dozen, 3s. size ; $\frac{1}{2}$ dozen 5s. size. This parcel includes a Bonus of one 3s. size, and one 5s. size, representing a profit of 31 per cent.

The above are stock parcels, but their composition may be altered at customer's discretion up to the aggregate retail value, viz., the £2 2s. parcel may contain 1 dozen 3s., and $1/6$ th dozen 5s. size.

Each parcel will contain a supply of the Velocium explanatory booklets for distribution to customers, and attractive window and counter display matter.



M"

tic

W.I. (Telephone: Regent 3825) And at NEWCASTLE-ON-TYNE.



TRADE MARK **NORMACOL** BRAND
Intestinal Evacuant.

The Introduction of "Normacol" to the Medical Profession of the United Kingdom and Ireland has met with complete success. "Normacol" is an "all - the - year - round" line and the demand will continue to rise owing to our persistent advertising. Numerous complaints reach us to the effect that "Normacol" is still unobtainable at many Pharmacies and we therefore invite your co-operation in promptly getting supplies from your usual Wholesaler. Only tins of 4 oz. and 16 oz. bearing our name and address are genuine.

Satisfactory Discounts are given to Retail and Wholesale Druggists, and these Products are profitable to handle.

TRADE TERMS ON APPLICATION.

H. R. NAPP LIMITED,
3 & 4 Clements Inn, LONDON, W.C.2



Still on Top!!

EDWARDS' "HARLENE" Toilet Specialities

THE WORLD'S BEST SELLERS



"HARLENE"
FOR THE HAIR

"UZON"
BRILLIANTINE

"CREMEX"
SHAMPOO POWDERS

"ASTOL"
FOR GREY HAIR

"ASTINE"
VANISHING CREAM

"ASTINE"
TOOTH CREAM

"ASTINE"
SHAVING STICK

"ASTINE"
NAIL CREAM

TWO ENTIRELY NEW LINES!

"JUNOFLORIS" Spring Breath TABLETS

A Breath Purifier and Antiseptic Mouth and Stomach Deodorant in Tablet Form—NOT a Cachou. As "Junofloris" is an entirely New and Original line which does not compete with anything in existence, it will therefore add EXTRA PROFIT to your business. Packed in Neat Counter Display Cartons of 1 doz. Boxes which sell "Junofloris" at sight.

"JUNOFLORIS" Spring Breath DENTIFRICE

A Dental Cream embodying the principal characteristics of ordinary tooth powders and pastes PLUS the unique power to remedy the tendency to Unpleasant Breath.

Prices of both above lines Advertiser (minimum Retail) 7½d. & 1/1½ per box Less 20% Discount.
Makers' 6/8 & 12/- .. doz.

PLACE YOUR ORDER TO-DAY.

EDWARDS' HARLENE, LIMITED

20, 22, 24 & 26 LAMB'S CONDUIT STREET, LONDON, W.C.1.

British!**Better!****Bigger profits!**

Sole Representatives required for each of the three following territories:— Lancs, Yorks and Southern Counties.

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Alexander Dunlop,
47 Osborn Street, C.I.

RETAIL
PRICE

5 for
1/-



DOUGLAS KIRBY & CO., LTD.
9 & 10 CHARING CROSS, LONDON, S.W.1

Telephone:
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8063-4-5,
and 3147.

Kirbee Blades are proving the enormous success we anticipated, and most pharmacists are now pushing them hard and keeping us busy on the telephone with repeat orders. By very vigorous national advertising and bright sales-aids we have stimulated public demand—all you need to do is to display Kirbee Blades prominently and secure the very big discounts we offer.

Trade terms and attractive display matter on request. From usual wholesaler, or direct if any difficulty.



13 TO THE DOZEN!

On all orders of this famous selling line received immediately we are allowing 13 to the dozen. At 45/- per dozen and 56/- retail price this offer is most attractive. Order at once—through your usual wholesaler.

RETAIL **56** PRICE
MONKEY
BRITISH **STIRMONKEY** MADE

Many Chemists now share in **O-Cedar** sales Polish

There is nothing at all speculative in stocking O-Cedar Polish—a modern household necessity. Indeed, the “turnover” is so quick that Chemists are making important “total sales” with quite small stocks.

All the “selling” is done for you by persistent advertising, and by attractive Counter Display Cartons.

Simply hand over the O-Cedar Polish—each bottle in its individual carton—and take the money. No “pushing,” no argument, no complaints. Just an easy sale, at a generous profit, with assured repeat orders to follow.

Write for trade terms and full price list.

O-Cedar Ltd., Slough, Bucks.



*This
new 6d. size*

is just right for introducing O-Cedar Polish to new customers. Besides, many women prefer to buy “little and often.”



The Floor the Dancers Prefer

SLIPPERINE
DANCE POLISH

DECORATED TINS P.A.T.A. 1/6 2/6 10/6
FROM THE WHOLESALE TRADE
OR THE MAKERS
JOHNSTON & ADAMS, DUNDEE

CAPSOL DYE

CAPSOL 3d. DYES. THE DYE FOR ALL MATERIALS

CAPSOL WONDER DYES, 6d.
DYE SILK and WOOL, but NOT COTTON.

CAPSOL DIPFIT, 6d. tube
THE WONDERFUL COLD WATER DYE.

Capsol Dyes employ Gelatine as a Base, giving more uniform results. The range of colour is extremely varied and exceptionally brilliant.

Ask us for Samples and Trade Terms.

Capsol Products Ltd., Blackpool

Sole Agents for England (South of Yorkshire and Lancashire) and Wales; **ROBERT W. PHILLIPS, LTD.**
CRAVEN HOUSE,
KINGSWAY, LONDON, W.C.2.

THE
FLAMINGO
OBLIQUE, REFILL,
SHAVING-STICK.
British Made. Patented.
THE Refill Shaving-Stick.
The ONLY Obliquened Shaving-Stick.
A SELF-SUFFICIENT TOILET NECESSITY.
The World's Best Value.
HANDSOME, CLEAN, OBLIQUE, UNIQUE.

QUICK SELLER



Wholesome Throughout.
Chemically inert, moulded, permanent Containers.



Refills of best quality Shaving Soap, which lathers freely and renders brushes unnecessary—saving their cost.

Prevents Infection.
Enables variation of contact area.

Massages on application with circular motion. Gives best and most economical service.

Thrust End.

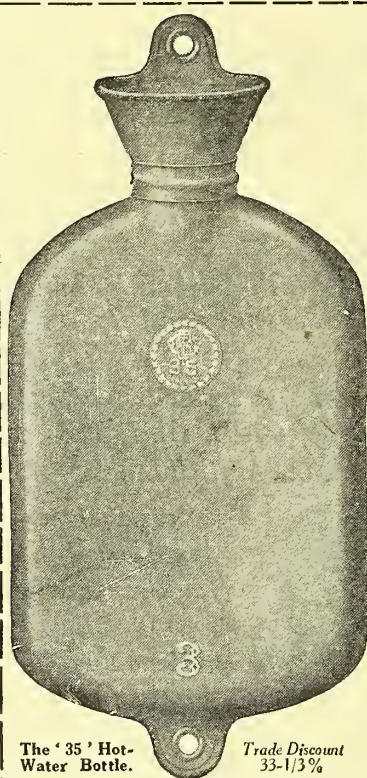
PRICES (P.A.T.A.):—
HOME SALE, EACH. HOME RETAILERS', PER DOZ. HOME WHOLE-SALERS' AND EXPORTERS'.

Complete & Sealed 2/6 20/- UPON
Sealed Refills - 9d. 6/- ENQUIRY.
EACH REFILL SAVES FROM 3d. TO 9d.

STRIKING & ARTISTIC SHOWCARDS, etc.
SPECIAL TERMS FOR WINDOW DISPLAYS.
Demonstrations being Given.
Exhibiting at **BRITISH INDUSTRIES FAIR, 1927 (STAND No. A.42.),** and at **THE DRAPERY EXHIBITION, 1927 (No. 4, Wall Space, Main Gallery.)**

On 11th December, 1926, we awarded **TEN GUINEAS** to the well-known North London Chemists, Cooper's, of 93 Tottenham Lane, Hornsey, for having made, gratuitously and upon their own initiative,
A FLAMINGO WINDOW DISPLAY.
We always recognise such Services.

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The '35' Hot-Water Bottle.

Trade Discount 33-1/3%

Size 2 retails at 7/6 each.
Size 3 retails at 8/3 each.

The GOODRICH

HOT-WATER BOTTLE '35'

The Pièce-de-Résistance of the Goodrich Line. A red rubber bottle moulded by hydraulic pressure in one piece without seams. Diffuses heat steadily and lastingly. Branded with the *Manufacturers'* name and carrying the Goodrich guarantee. A wonderful value to retail at a popular price.

Goodrich Fountain Syringe and Combination Syringe

Assembled with heavy walls, flush flow smooth tubing, shut off, and three genuine hard rubber threaded pipes.

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Size 2 (quart) retails at 10/- each. Size 3 (quart) retails at 10/9 each.

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Size 2 retails at 12/6 each. Size 3 retails at 13/3 each. Trade discount 33-1/3%

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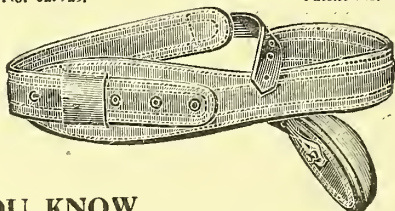
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Chemists can obtain supplies through their sundry House.

The "Hernicura" "COMFORTABLE"

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Patent No. 23241.



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the "Hernicura" Trusses. They are easy to fit, possess great adaptability, give absolute satisfaction, and yet are most reasonable in price.

A 33 inch Truss will adjust from 30 to 36 inches.
Head is also adjustable.

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Established 1843

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THIS is the Original Rubber Adhesive Plaster. It fulfils perfectly every surgical purpose to which strapping plaster is applied, and holds the implicit confidence of the Medical Profession by reason of its unvarying reliability.

NOTE.—Mead's Plaster is free from Dammar Resin and therefore obviates dermatitis.

Supplied in every convenient width on spools of 10, 5 and 2½ yards. Also 7 and 12 inches wide (Plain or Porous) in 1 and 5 yard rolls, etc., etc.

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"Flesh Colour"
NORVIC
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Ladies prefer them because of their comfort, unobtrusiveness and cleanliness. They are the recognised

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Made in 2, 2½, 3, 3½ and 4 in. widths, combining hygiene with smartness.

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 The public is asking for **ZEAL** CLINICAL THERMOMETERS because they are:-
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ALUMINIUM

Hot-Water Bottles

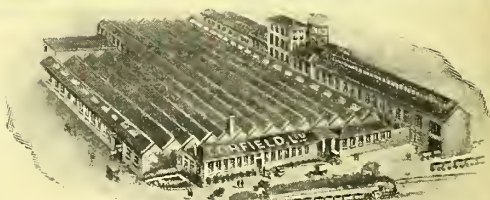
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Bleachers of Bandage Cloths, Gauzes,
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For SUN, DUST, WIND & GLARE



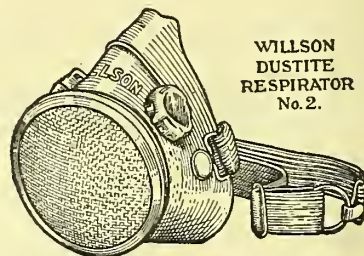
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Containing 12 Pairs of High Grade
Goggles with assorted Fiuzal,
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Look for
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on the frame

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For Dusty Work and Spraying.

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Made in Pure Tin, Lead,
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(6 lines).

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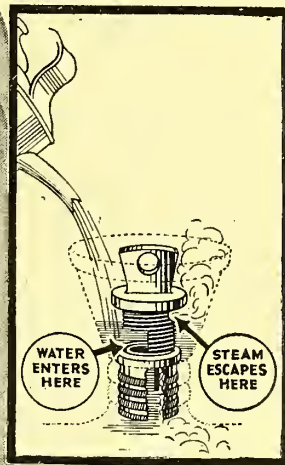
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The safest and simplest Hot Water Bag in the world

THE Macintosh Anti-scald Hot Water Bag is so superior in every way to all other hot water bags, that it practically sells itself—once your customers have seen it. Get your stocks ready *now* to meet the demand our advertising is creating.



The patent stopper illustrated here is an exclusive feature of the Macintosh Anti-scald Hot Water Bag.



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Anti-Scald HOT WATER BAG

Ask your usual suppliers for full particulars and trade terms.

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This Manual has been thoroughly revised. Insulin is discussed in its various aspects, and among the new remedies considered are Bismuth salts in syphilis, Sanocrysin and Morrhuates in tuberculosis, Mercurochrome in vesical infections, Novasurol in dropsy, Tryparsamide and Bayer 205 in sleeping sickness, Malarial Therapy in neuro-syphilis, Carbon Tetrachloride in ankylostomiasis, and the Chaulmoogrates in leprosy.

Attention is also given to the new anaesthetics and hypnotics, to Scarlet Fever Antitoxin and Protein Treatment.

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BATTLE, HAYWARD & BOWER, Victoria Chemical Works, LINCOLN

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BECAUSE it enjoys the largest sale of any Cattle Medicine Preparation and is on the P.A.T.A.

BECAUSE it is consistently advertised and all advertisements refer to the Chemist as the source of supply.

BECAUSE it is well packed, does what it is advertised to do, and shows the trade a satisfactory profit.

BECAUSE we do not employ travellers calling on Farmers, attending sales, &c.

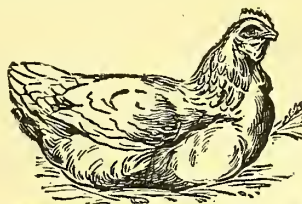
One size, retailed at face value, viz: 3/9 per bott.

Cash with order terms.

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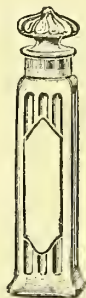
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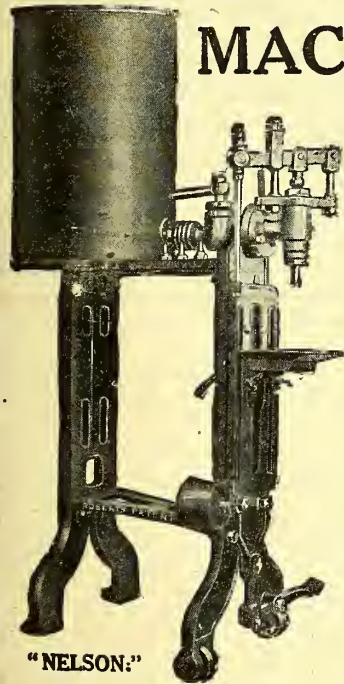
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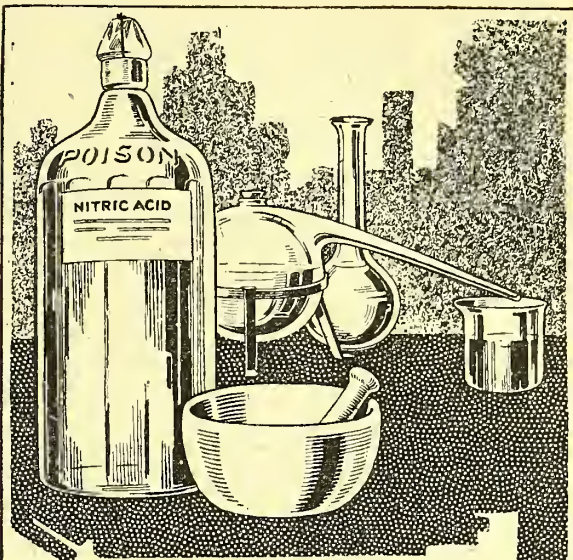
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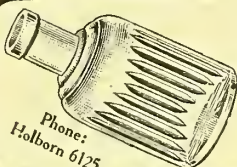
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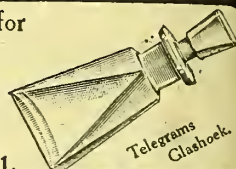
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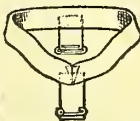
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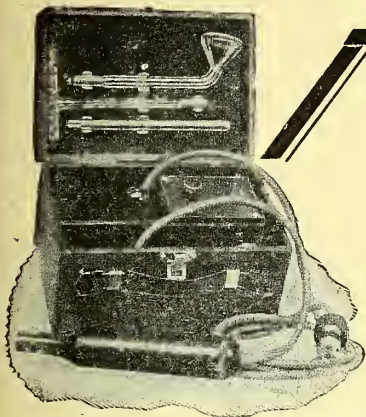
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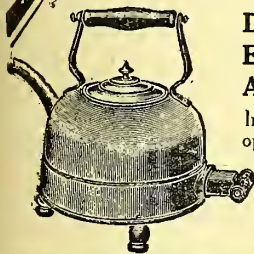


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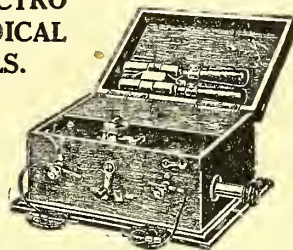
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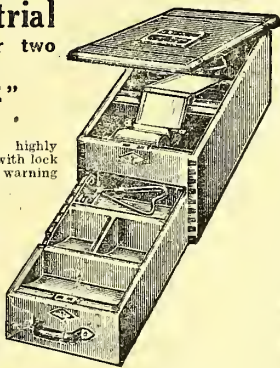
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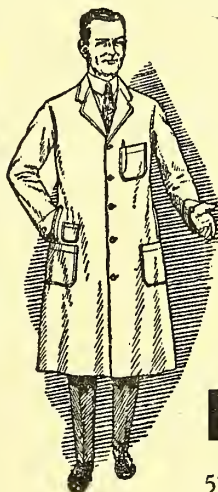
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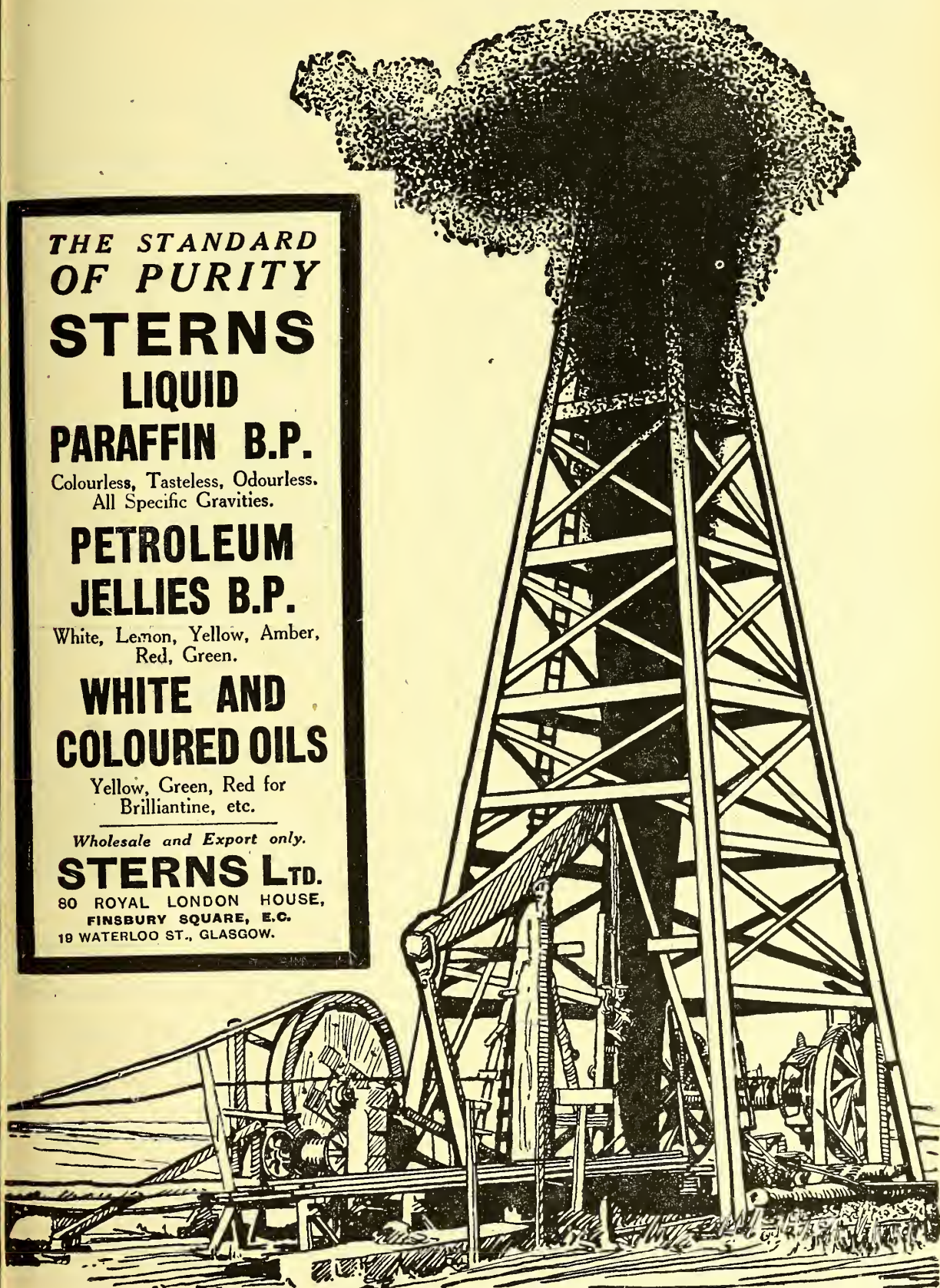
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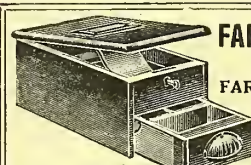
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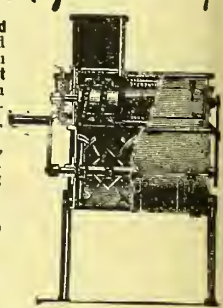


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of

FEBRUARY 19, 1927.

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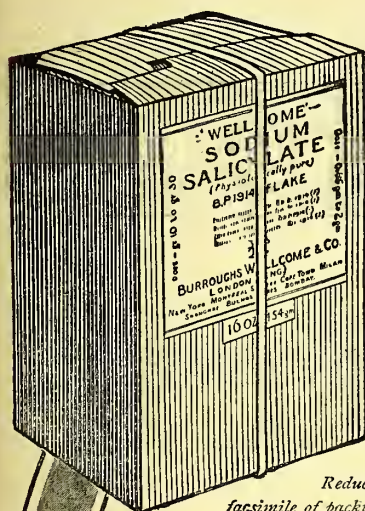
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Melbourne and Sydney, Australia.

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Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Wednesday, February 2

Ealing Pharmacists' Association, Frascati's Restaurant, London, W., at 6.30 p.m. Annual dinner and dance. Tickets (12s. 6d. each) from Mr. S. R. Hughes, 22 The Green, Ealing, W.

Pharmaceutical Society of Great Britain, 17 Bloomsbury Square, London, W.C., at 11 a.m. Council meeting.

Pharmaceutical Society of Great Britain (East Metropolitan Branch), Y.M.C.A., 67 Woodgrange Road, Forest Gate, E.7, at 8.45 p.m. "Some Legal Aspects of Pharmacy," by Mr. Arthur Mortimer, M.P.S., barrister-at-law (in place of Mr. Hines, York, who is unable to be present).

Royal Society of Arts, John Street, Adelphi, London, W.C.2, at 8 p.m. Mr. Norman Evers, B.Sc., F.I.C., on "Chemistry and the Supply of Drugs."

Friday, February 4

Edinburgh Chemists' Assistants' and Apprentices' Association, 36 York Place. "Materia Medica of the Solanaceæ," by Mr. Hugh Skinner; "Note on Sal Prunella," by Mr. J. Hutton; "Note on Artificial Propagation," by Mr. C. Gunn; "Introduction to Plant Physiology," by Mr. G. Hedderwick.

Royal Institution of Great Britain, 21 Albemarle Street, London, W., at 9 p.m. Professor E. V. Appleton on "Wireless Transmission and the Upper Atmosphere."

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Inquests

At an inquest held on January 17 at Llandudno, on the body of Fred Bailey, who died at Llandudno Hospital, after taking lysol, the coroner commented on the frequency of such cases, and said it was a question whether such substances should not be included among the scheduled poisons.

Mr. J. S. Paddock, drug-store proprietor, 105 Stanley Road, Bootle, was found unconscious, on January 24, with a half-empty bottle of carbolic acid by his side. At the inquest at Bootle on the following day the widow said that her husband had been very depressed of late. Death was attributed to the results of carbolic acid poisoning, and a verdict of "Suicide while of unsound mind" was recorded.

In summing-up at an inquest on the body of Henry Moss, Stepney, London, E., who committed suicide by taking a solution of ammonia while of unsound mind, the coroner remarked: "It is impossible to schedule every poison with a view to preventing cases of suicide, for even then you would be unable to include gas, which is one of the most common forms of ending life."

An inquiry was held at Woolwich, on January 25, regarding the death of James E. G. Nixon, an apprentice in the Royal Artillery, who died at the Royal Herbert Hospital after an operation. The anaesthetist stated in evidence that chloroform and ether was given by the open method. After the removal of one tonsil it was necessary to use an inhaler by which the anaesthetic was applied through a nostril. In the assembling of this apparatus an error had been made, and when he pumped the patient received liquid chloroform in the nostril instead of vapour. The mistake was immediately discovered and measures were taken to deal with it, but the patient died twenty hours later from acute oedema of the lungs brought about by the chloroform poisoning. In recording a verdict of "Accidental death," the coroner expressed the hope that such an accident would never occur again in the hospital.

Birmingham

Mr. John Webster, the Home Office analyst, who died recently (see p. 135), was a member of an old Birmingham Quaker family, and was educated at King Edward's School and Mason's College (now Birmingham University). Sir Bernard Spilsbury, with whom Mr. Webster was associated, is also a Birmingham man.

A successful dinner, arranged by the local branches of the Institute of Chemistry and the Society of Chemical Industry, was held at the Queen's Hotel, Birmingham, on January 22, when among the speakers were Professor G. G. Henderson (President of the Institute of Chemistry) and F. H. Carr (President of the Society of Chemical Industry). Mr. R. Hume, M.A. (chairman of Cuxson, Gerrard & Co., Ltd., Oldbury), replied to the toast of "The Guests."

Liverpool

The Liverpool Pharmacy Club is holding its first dance of the year at the Yamen Café, Bold Street, on February 9.

The second annual meeting of the Merseyside Branch of the League of ex-Service Pharmacists was held at the Royal Institution on January 19. Mr. Frank Wokes, chairman, presiding. Captain Hill, secretary of the League, gave an interesting survey of the work and progress of the League. He also emphasised the need of pharmacy being represented in Parliament, and said it was time they took up the attack; they had been too long on the defensive. Mr. J. L. Hirst, President of the Liverpool Chemists' Association, in proposing a vote of thanks to Captain Hill, expressed the hope that the captain would be their first Parliamentary representative.

Sheffield

Mr. Victor Wood, Middleton Road and Firth Park, has purchased the business of the late Mr. Douglas Dale, Ecclesall Road South.

The many friends of Dr. Bown, a past-President of the Sheffield Pharmaceutical and Chemical Society, will regret to hear that he is in somewhat indifferent health, and has been ordered to take a voyage.

A circular has been issued to panel practitioners, informing them that they can secure supplies of lymph from the medical officer of health. Some uncertainty exists in the minds of chemists as to their payment when the lymph is supplied by them through an Insurance prescription, although the *C. & D.* card explains the position.

Miscellaneous

FALSE PRETENCES.—At Hampshire Quarter Sessions, on January 18, Leonard Graham (66), described as a traveller, was sentenced to two years' hard labour for attempting to obtain the sum of 5s. from Mr. Leslie A. Wyatt, chemist and druggist, manager of the Aldershot branch of Boots, Ltd., by false pretences. It was stated for the prosecution that Graham represented that he appeared on behalf of the Early Closing Association, although he was actually a discharged agent of the Association. Previous convictions were proved.

UNDISCHARGED BANKRUPT COMMITTED FOR TRIAL.—At Bow Street Police Court, London, on January 21, Robert Brownlow (49), industrial chemist and engineer, late of the Hendon Scientific Laboratories, was committed for trial on charges of obtaining credit to the amount of £5,000 from Mr. Emil O. Schwarz, merchant, Wildwood Rise, N.W.; to the amount of £715 from Bishop, Armstrong & Co., Goswell Road, E.C.; and to the amount of £121 from Stott & Hotopf, chemical manufacturers, City Road, E.C., in each case without disclosing the fact that he was an undischarged bankrupt. Mr. Schwarz gave evidence that he answered an advertisement in September last offering a directorship in a company concerned with a new proprietary article of universal utility. Defendant at no time informed him that he was an undischarged bankrupt. Other formal evidence was also given. The defendant was admitted to bail.

IN THE COURTS.—At Old Street Police Court, London, on January 20, Albert J. T. Musgrave (27), lift attendant, charged on remand with stealing goods to the value of £2 1s., belonging to his employers, The British Drug Houses, Ltd., Graham Street, N.1 (*C. & D.*, January 22, p. 92), was bound over for twelve months.—At Croydon, recently, Dimitri Gumbell was sentenced to six months' hard labour for obtaining by means of a worthless cheque a camera, value £2 2s., the property of Mr. H. C. Neve, chemist and druggist, Thornton Heath.—At Stoke-on-Trent Police Court, on January 21, Alice Gurney, confectioner, Hanley, was fined 21s., with 21s. costs, for having sold sponge cakes containing 5.4 gr. of boric acid per lb.—At East Ham Police Court, on January 26, George Clark (30), carman, was fined 40s. for the theft of pharmaceutical products valued at 10s., the property of Allen & Hanburys, Ltd., Bethnal Green, E.

Scottish News

Brevities

Lysol and chloroform figure among poisoning cases recently reported in the Press.

Mr. Thomas Harley, Perth, arrived at Durban, Natal, during the last days of December. He has already met many English and Scottish chemists during his tour.

Edinburgh

The toast of "The Immortal Memory" was proposed at the Heather Club's annual Burns supper on January 21 by Mr. J. B. Mitchell, chemist and druggist.

George Lunan, chemists, 20 Queensferry Street, held their annual staff dance on January 19. A company of about seventy people was present, and a very enjoyable evening was spent.

The second whist drive of the present season of the Edinburgh Chemists' Golf Club will be held in Albion Rooms, 77 Queen Street, on February 9. The committee

is of the opinion that the change of venue will be acceptable. The whist drive secretary (Mr. Barrie) has all arrangements well in hand, and tickets are available from the usual sources.

Irish News

Brevities

Mr. James O'Dwyer, R.D., Mallow, has been co-opted a member of Mallow Urban Council.

The committee of County Clare Mental Asylum this year estimated for medicines and surgical appliances at £200, a reduction of £50.

The resumed hearing at Belturbet on January 20 of the charges against Mrs. E. Macnaghten, The Diamond, and her sixteen-year old daughter Maeve, of setting fire to the pharmacy of the former was again adjourned (*C. & D.*, January 22, p. 92).

Mr. John Hawthorne, Belfast, analyst for Londonderry City, in his quarterly report, stated that 122 samples of foods and drugs were submitted from Londonderry for analysis during the quarter ending December 31. One of magnesia was found to be adulterated.

Mr. I. J. Martin, in charge of the Irish Free State chemistry laboratories, stated at a sitting of a commission inquiring into the employing of apprentices that employers should insist upon some form of compulsory continuance classes, and suggested extending technical education to embrace general business methods, including the distributive trades.

The Free State Minister for Local Government invites tenders from manufacturers and traders who wish to become official contractors to the Government for the supply of goods to Irish public bodies. These goods include disinfectants, insulin, malt extract and cod-liver oil, medicines and drugs, medical and surgical requirements, sheep dips, paints and colours, etc.

"That death was due to heart failure following pneumonia" was the verdict returned in accordance with medical evidence at an inquest held in Dublin, on January 17, on the body of Christopher Anderson, aged four years and two months, of 4 Hanover Lane, Dublin, who died suddenly. Mrs. Elizabeth Anderson said that on January 14 she went to the chemist's shop of Mr. H. L. Mushatt, in Francis Street, and got a cough mixture for the child. On Saturday, when putting him to bed, he asked for a drink of water. She gave him milk, and he died almost immediately. Dr. Louis A. Byrne, City Coroner, in addressing the jury, said the chemist complied with the woman's request for something for her child's cough. This was a very serious thing to do, and he understood that the practice had been going on for a long time.

Belfast

Mr. Richard Lenihan, Ph.C., has taken over the premises 122 Donegall Street, Belfast, in which Mr. Matthew Macdonald, Ph.C., carried on a pharmacy until recently, and will re-open them shortly. Mr. Lenihan was manager of Davidson & Hardy, chemists, Castle Place.

In connection with the adornment of Belfast Cathedral the Nicholl family have presented a capital beautifully carved by Mr. Morris Haring, R.B.S., in memory of the late Mr. Isaac Nicholl, Ph.C., who was organist for many years of St. Anne's Church, which is now the Cathedral.

Boys who were refused calendars were alleged to have maliciously broken the window of Hill & Co., Ltd., chemists, 103 York Street, Belfast, and the owners claimed £10 for malicious injury at Belfast Recorder's Court recently. The Recorder gave a decree for £6 12s. 8d.

The Ulster Retail Drug Trade Association will be represented on the Executive of the Belfast and District Chamber of Trade during 1927 by the following:—Messrs. Andrew Wilson, Ph.C.; S. Suffern, R.D.; W. E. Wilson, R.D.; A. W. Mann, Ph.C.; R. I. Edwards, Ph.C.; and Joseph Moffet, Ph.C.

French News

From the "C. & D." Paris Correspondent.

M. VALEUR, assistant professor in the Paris Faculty of Pharmacy, head pharmacist of the Paris asylums and member of the Paris Society of Pharmacy, has been nominated to the Codex Revision Committee, in place of M. Lafay, recently deceased.

THE ANNUAL FAIR AT LYONS (in March) will include a medical section, in which pharmaceutical specialities, mineral waters, dietetic foods, bandages, pharmaceutical accessories, etc., will be exhibited. This section will be organised by the Office Commercial Pharmaceutique, 71 rue du Temple, Paris.

THE BIBLIOTHÈQUE NATIONALE continues its interesting series of historical exhibitions. The next, to be inaugurated on February 24, will illustrate the epoch of Louis XIV, and the autograph formula of the poison of the notorious Marquise de Brinvilliers figures among the documents which will be temporarily exhibited.

PHARMACY IN MOROCCO.—The question of the regulation of pharmacy in Morocco has now been settled, apparently to the satisfaction of all parties concerned, after sundry representations made to the Resident-General by the pharmaceutical associations of Southern Oran (Algeria) and of Morocco itself, and an intervention by the General Association of French Pharmacists.

THE LORD MAYOR OF LONDON, during his recent stay in Paris, visited the International Rubber Exhibition at the Grand Palais. Quite a number of British firms in different branches of the rubber trade have stands there, and there is an interesting show of tropical produce. The Belgian Congo, Portuguese Africa, Gold Coast, etc., are represented, as well as the French colonies.

ADVERTISEMENTS IN FOREIGN LANGUAGES.—M. F. Merlin recently, in the Senate, asked the Minister of the Interior whether he did not think fit, in view of the ever-increasing numbers of announcements and advertisements in foreign languages posted up in public places, shops, etc., to insist upon their translation into the French language. The Minister, in his reply, stated that prefects have been requested to prescribe that all posters made out in a foreign language must also bear a French translation drawn up side by side with the foreign text. Furthermore, a Bill is at present being examined with a view to submitting to this obligation of translation the various forms of publicity in foreign languages which might entail abuses contrary to national interests.

THE GOLD MEDALS OFFERED BY THE SOCIETY OF PHARMACY OF PARIS have been awarded to M. Sallé for his thesis on "Some Mono and Dialcoxyated Benzhydramines," and to Mlle. Séguin for her "Researches on Phagocytosis in Vitro." M. Métin takes the Leroy Prize for his work on "Variations of Alkaloidal Strength in *Aconitum Napellus*"; and Mlle. Barel the Vigier Prize for a study on "The Preparation by Percolation of some of the Extracts and Tinctures of the French Pharmacopœia." M. Béguin, not being of French nationality, could not be awarded the Landrin Prize for his "Application to *Polygonum cuspidatum* of Biochemical Methods of Research for Glucosides and Sugars," the testator's conditions reserving this prize to French students, but he was complimented by the Society on his thesis.

THE CENTENARY OF LAENNEC, "the greatest doctor since Hippocrates," as a French admirer styled him, was recently celebrated in Paris, and the President of the Republic was present at the great gathering at the Faculty of Sciences. The Academy of Medicine held a special meeting, and various souvenirs of the savant were shown, including his first stethoscope, loaned by M. René Laennec. The Pasteur Institute organised a reception, with an address by Professor Calmette on the "Prevention of Tuberculosis since Laennec's Day." Laennec's "Treatise on Auscultation" ran through five editions in England and four in America, compared with four in France, and the British army surgeons were among the first to make the use of the stethoscope official. An enterprising firm of pharmaceutical manufacturers are celebrating the centenary by attaching Laennec's name to their new cough syrup.

Colonial and Foreign News

NEW INDIAN COMPANY.—The Popular Pharmacy, Ltd., is the name of a new company which has lately been formed at 167 Russa Road, South Calcutta, with a capital of 20,000 rupees, to deal in drugs and medicines.

PHARMACEUTICAL CONGRESS IN CHILE.—A national pharmaceutical congress was recently held in Concepcion, Chile, and was attended by about 200 pharmacists from all parts of the country. There were fewer displays than had been expected, however, and attendance at the exhibition of pharmaceutical products was poor.

ITALIAN VINEGAR FOR THE UNITED STATES.—The Italian Minister of National Economy draws attention to the United States as a market for Italian vinegar, where it is already known and appreciated. Vinegar made from Chianti, it is stated, is quoted in New York wholesale at \$4.40 per case of 12 quart flasks, and last year one firm alone imported over 15,000 gallons.

LIMITATION OF PHARMACIES IN TURKEY.—The provision contained in the proposed pharmacy law dealing with the limitation of the number of pharmacies in Turkey is seriously perturbing many Constantinople pharmacists, since the enforcement of this measure will entail the compulsory closing of a large number of the existing 300 businesses. Further, considerable doubt exists as to the procedure to be adopted; indeed, it is feared that the health inspectors will be empowered to order summarily the closure of any business at their own discretion. On the other hand, it is reported that owners of existing businesses in quarters where several of these will have to be closed are to be advised to combine in establishing a pharmacy jointly. The problems raised by the proposed law are so many and of such importance to the profession that a delegation of Turkish pharmacists has proceeded to Angora, to lay their complaints and wishes before the Minister of Health.

TOOTH-BRUSH MANUFACTURE IN CHINA.—The tooth-brush industry in Shanghai owes its birth to the movement in 1919 to promote the use of home-made goods. A tooth-brush factory was started in that year, but it did not prove successful. In 1920 a Japanese returned student organised the Shung Lun Tooth Brush Co., Ltd., and this firm may be regarded as the first tooth-brush company in Shanghai. Since then fourteen other companies have come into existence. Nine of the fifteen factories are manufacturing tooth-brushes by machinery, but the others still depend upon hand labour. The chief kinds of materials used are bones and hair. The bones used for the handles of the tooth brushes are mostly imported from America. Three kinds of hair are adaptable to the production of tooth brushes. A certain kind of sheep's hair from Australia is generally used for the manufacture of cheap brushes, but it has not yet been used in China. The second kind is horse hair, obtainable in the north-eastern provinces of China, and used for cheap brushes. The best kind of hair is white bristle, which is mainly obtained from Szechwan.

INDIA'S GROWING IMPORTS OF DRUGS AND MEDICINES.—For the first half of the fiscal year 1926-27 there has been an increase in both the import and export trade of India in drugs and medicines. Imports were valued at rs. 94,38,004, compared with rs. 83,16,309 in the corresponding period of 1925-26, and to this amount proprietary and patent medicines contributed rs. 13,06,729 (rs. 10,89,495), quinine salts rs. 13,01,034 (rs. 13,88,883), and camphor rs. 12,13,374 (rs. 11,26,192). There was a decrease in imports of cod-liver oil, and also in receipts of cocaine, but preparations of opium and morphine showed a notable advance at rs. 48,709, and there were larger receipts of asafetida and cassia lignea. Under the heading of "other sorts," imports were valued at rs. 47,05,658 (rs. 40,95,108). India's export trade in drugs and medicines was valued at rs. 23,85,457 (rs. 16,37,959), of which sum rs. 16,36,783 represented the value of items other than cinchona, nux vomica and senna. Shipments of nux vomica and senna increased, but there was a heavy drop in exports of cinchona, the quantity shipped being only 41,528 lb., against 456,069 lb. during the first half of 1925-26.

Legal Reports

London Agent Summoned.—At Guildhall Police Court, London, on January 20, William Reynolds Smith, Harp Lane, E.C., was charged on an adjourned summons with the fraudulent conversion of various sums of money, with forging orders for the delivery of goods, and with uttering the forged endorsement to a cheque (*C. & D.*, January 22, p. 94). Detective Lane now said he served the defendant with the summons on December 10 last; Mr. Smith remarked, "I have a complete answer to this." On December 24, when served with notice of additional charges, he said, "These are quite incomprehensible to me. The whole matter is a question of account." The defendant, who pleaded "Not guilty" and reserved his defence, was committed for trial.

Damages for Child's Death.—In the Court of Session, Edinburgh, on January 20, Patrick Fitzpatrick, tramcar driver, Pollokshaws, Glasgow, sued George Melville, Viking Thread Mills, Pollokshaws, for the sum of £500 as damages in respect of the death of his son Anthony, aged six years, who died in consequence of eating nitrate of soda. The pursuer stated that the boy went to a door of the defenders' dyehouse which was standing open, and from a barrel within the doorway took some nitrate of soda, and swallowed it. On arriving home he became ill and died shortly afterwards. The pursuer maintained that it was the duty of the defenders to have taken precautions to prevent children taking possession of the nitrate, and that his son's death was due to their breach of this duty. The defenders, who denied fault and pleaded contributory negligence, stated that as the nitrate of soda was not within the reach of the public unless they trespassed, they were not under any obligation to take the precautions referred to. The appearance of the barrels was such as to indicate to anyone using reasonable care that the contents were not intended to be consumed. The jury returned a unanimous verdict for the pursuer, and assessed the damages at £150.

Dutiable Medicine on a Stall.—At Knaresborough, on January 19, Herbert Edge, Newcastle and Stockton-on-Tees, described as a herbalist, was summoned for having sold a certain medicine not sealed with a duty stamp, and also for selling the medicine without a licence. It was stated for the prosecution that on September 22 the defendant had a stall in Knaresborough Market selling "Herbal, Indigestion, and Dyspepsia Cure" for 2s. a packet. An Excise officer purchased a packet, and asked the defendant how the cure was prepared. The defendant pointed out that in order to relieve himself of being liable to stamp duty he showed the ingredients on the label. The officer told him that the exemption by printing the ingredients on the label referred only to sales by chemists and druggists. For the defence it was urged that there had been no sale. The officer told the defendant that the Board of Customs and Excise was always ready to advise him whether his goods were liable to stamp duty. The defendant then produced a packet of pills from a sample case and asked if it was liable. The officer said he thought it was, but he would take it away and let him know later. The pills were not sold to the inspector, nor had any been sold to the public. The packet was taken from a sample case, and was the only one the defendant had with him. The Bench imposed a fine of £2 10s. in each case.

Damages for Window Smash.—In Uxbridge County Court, recently, Mr. Joseph Henry Collins, chemist and druggist, Green Lane, Northwood, sued Leonard P. Mullett, Watford, to recover the sum of £50 as damages for negligence. The action arose out of an accident in which the defendant's motor cycle smashed the plaintiff's shop window. A. E. Rawlinson, Northwood, was entered as a third party in the action, the defendant suggesting that a boy in his employ recklessly rode a cycle out of a side turning and caused him to lose control of his machine. Mr. W. O. Lovibond represented the plaintiff. Giving evidence, Mr. Collins said that on March 1 last year he heard a crash. He came out of his shop and saw several people, including Mr. Mullett, and a motor-cycle and side-car in the doorway. The window was smashed. He asked Mr. Mullett if he was

insured, and he said, "Fully. That will be all right." Mr. Mullett called the next day and suggested he should make a claim upon him. He obtained an estimate and handed Mr. Mullett the account. The latter did not dispute his liability. Mullett stated in the witness-box that he could not turn to the left at the time referred to because of a standing car, and he had not sufficient space to pull up to avoid the boy. When the boy came out in front of him he was going at between twelve and fifteen miles an hour. Other evidence having been given, the judge said that, except by way of suggestion, there was no evidence that the boy was going at an excessive speed. On the evidence he was satisfied that Mullett was travelling at a speed that in the circumstances was excessive. He held on the evidence that the defendant was negligent. In these circumstances plaintiff's case against him succeeded, and there must be judgment for plaintiff against defendant Mullett for £50 and costs. As to the case against Rawlinson, that must be dismissed with costs to be paid by the defendant who brought him in.

Price Fixing: Interim Injunction.—In the Chancery Division of the High Court, London, on January 21, Mr. Justice Astbury heard a motion in the action Palmolive Co. (of England), Ltd., Eagle Street, London, W.C., against Morris Freedman, Rye Lane, S.E. Mr. Courtney Terrell, for the plaintiffs, said he had, in this action against the defendant to restrain breaches of an agreement to maintain the prices of goods supplied, a motion for an interim injunction to restrain such breaches. The plaintiffs made and sold a well-known form of toilet soap very widely advertised, and they had an agreement by which their trade customers agreed not to re-sell at less than certain agreed prices. At some of his bazaars, according to the affidavits, the defendant had sold tablets of soap, agreed to be sold at 6d., for 5d. The defendant raised a curious defence. He admitted that he made the agreement and that he had broken it, but he said he was justified in breaking it for the reasons, as he said, that the plaintiffs were profiteering; that this was a harsh and unconscionable bargain; and that this agreement was against public policy and void. Mr. Archer observed that the defendant said a few more things. He said that the plaintiffs were not going to supply him with more goods, and he was not going to ask them to. He apparently had no more soap under the contract. The Judge: Then it would not hurt you to give an undertaking not to sell what you have not got. Mr. Archer: But I want to fight this out, because I say this kind of contract is against public policy and very unreasonable. It is in restraint of trade. His Lordship: It is one of the commonest forms of contract in England, to prevent re-sale at less than a certain figure. Mr. Archer: It is in restraint of trade that a man shall not be allowed to sell at any price he pleases. Mr. Terrell: The defendant's attitude, I suggest, is to obtain an advertisement for his bazaars. Mr. Archer said he might buy from someone else, and then he might sell as he would. His lordship, in giving his decision, said that the defendant bought a considerable quantity of soap under his contract with the plaintiffs, in which he agreed to maintain the price of these preparations in respect of sales both to retailers and the public. Later he wrote that he thought he was liable to proceedings for profiteering, and it would be harsh to the public, and no judge would pass it. Then it was discovered that he was breaking his contract by selling at 5d., and he wrote that he did not mean to abide by his contract, as he considered it harsh and unfair, and there was a good deal of other rubbish in the letter. Finally he wrote that he would be glad if the plaintiffs would issue this writ, or he should send the correspondence to the Press, and the plaintiffs indulged him and brought this action. He instructed his counsel he had no soap left which he bought from plaintiffs, yet his affidavit showed that he had two gross in stock. The points as to public policy and restraint of trade his lordship did not propose to discuss. The defendant had deliberately broken his contract, and intended, unless restrained, to go on breaking it. His lordship did not propose to make any order with regard to soap purchased from sources other than the plaintiffs,

but until the action he restrained him from breaches of the contract, or till judgment or further order, in respect of soap he bought from the plaintiffs. Costs to be costs in the action.

Dangerous Drugs Acts Records.—At Hull Police Court, on January 25, Mr. Ernest Haworth Earle, chemist and druggist, King Edward Street, was summoned under the Dangerous Drugs Regulations, 1921. There were two summonses for unlawfully failing to mark a certain prescription signed by Dr. Arthur Legge Roe with the date on which it was dispensed, and two other summonses for purchasing "dangerous" drugs and for failing to enter them in the register. Mr. G. S. Williamson prosecuted, and Mr. H. Glyn-Jones, barrister, defended. Mr. Arthur Legge Roe, L.R.C.S. Irel., consulting ophthalmic surgeon to the Hull Royal Infirmary, deposed that he gave the defendant two prescriptions to make up last year; these were for patients who were to be operated on at the infirmary. Witness had given Mr. Earle many prescriptions to make up, and invariably they were delivered at witness's house. The prescriptions in question contained two drachms of 5 per cent. cocaine solution. Witness had known the defendant many years, and he was a most respected citizen. The prescriptions written out by witness were always dated. In reply to Mr. Glyn-Jones, Dr. Roe stated he had no doubt whatever that the prescriptions were made out the same day as the solution was dispensed. No improper use had been made of the mixture. Detective-Inspector R. Cleveland gave evidence that he visited the defendant's shop on January 1, and, having seen some prescriptions, said: "Some of your prescriptions do not bear the date on which you dispensed them." Mr. Earle replied: "I did not think it necessary, as they were all dispensed on the date shown, and they are all entered in the prescription-book the day on which they are dispensed." In reply to Mr. Glyn-Jones, witness made no suggestion whatever of any improper usage. He did not know that the defendant had been in business as long as forty-eight years without a complaint being made against him, but he had known him for some years as a man of irreproachable character. Mr. Glyn-Jones submitted that there was no case to answer with regard to the first two summonses, on the ground that the prescriptions were not ordinary prescriptions, as they were never handed to a patient and it was a contract of sale between doctor and chemist; secondly, he urged that there was nothing in the Regulations which laid any duty on the chemist to put the date on the prescriptions; and, thirdly, that a number put by the defendant on all the prescriptions enabled the date to be ascertained from the prescription-book. Mr. Glyn-Jones added that the case was a serious matter for his client, as, if a conviction were registered against him, the Home Secretary had power to put him out of business, which would be a monstrous thing. The Magistrate: I will hear the other two summonses before giving judgment. Detective-Inspector Cleveland deposed that the defendant had purchased some Nephenthe in 1925 from Loffthouse & Saltner, Ltd. When seen by witness and asked, "You have purchased certain drugs which you have not entered in your register?" Mr. Earle replied: "Any omission in entering goods purchased is an oversight on my part." The magistrate said, in regard to the first two summonses, he found that the defendant had made an honest mistake, and he would dismiss both summonses under the Probation of Offenders Act, but the defendant would have to pay £4 12s. costs. In regard to the other two summonses, it was a case in which the defendant might have jumped into a foolish confession and pleaded "Guilty" when there was no evidence against him. By that defendant might have lost everything. His worship said that he would dismiss the second two summonses for failing to enter the purchase of drugs in the register. Mr. Glyn-Jones asked for £4 4s. costs against the prosecution. The Magistrate: I will grant £2 2s. costs against the prosecution.

IMPORTS OF CHEMICALS INTO MALAYA.—The total value of chemicals, drugs and colours imported into British Malaya during the first three quarters of 1926 was £1,714,908, compared with £1,323,390 in the corresponding period of 1925.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

PHILIP FRANCIS JOSEPH & Co., LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of fluid and powder disinfectants, etc. The directors are: H. Gahegan, and Helen Gahegan. R.O.: 395 High Road, Willesden Green, London, N.W.

JOHN PENROSE, LTD. (P.C.).—Capital £250. Objects: To carry on the business of manufacturing, operating, pharmaceutical and analytical chemists, confectioners, sundrymen, druggists, drysalters, manufacturers, merchants and agents for fruit essences and essential oils, perfumery and toilet requisites, etc. R.O.: Radium House, Radium Street, Manchester.

CLUN PHARMACY, LTD. (P.C.).—Capital £900. Objects: To acquire the pharmacy of F. V. Jessop, at 25 High Street, Clun, Salop, and to carry on the business of chemists, druggists, opticians, patent medicine proprietors and vendors, dealers in photographic apparatus, etc. The directors are: F. V. Jessop, P. H. Woosnam-Savage, and Irene A. Jessop. R.O. 25 High Street, Clun, Salop.

WELLINGTON PHARMACY, LTD. (P.C.).—Capital £100. Objects: To carry on the business of chemists, druggists, opticians, drug stores proprietors, and patent medicine proprietors and vendors, wine and spirit merchants, stationers, dealers in fancy goods, wireless and photographic materials, etc. The directors are: H. B. Thompson and R. F. Barnes. R.O.: 24 Wellington Street, Camden Town, London, N.W.

ZAMBRENE, LTD. (P.C.).—Capital £50,000. Objects: To acquire the trade mark "Zambrene," No. 357,490, Class 34, and to carry on the business of manufacturers, importers and exporters of and dealers in waterproofed or rainproofed garments, waterproofer, dyers, cleaners, weavers, spinners, tailors, dressmakers, clothiers, chemists, laboratory proprietors, manufacturers, importers and exporters of and dealers in all kinds of textile fabrics, pharmaceutical and chemical preparations and laboratory apparatus, etc. Solicitors: J. D. Langton & Passmore, 111 Old Broad Street, London, E.C.2.

THAMES CHEMICAL Co., LTD.—With reference to the announcement of the winding up and meeting of creditors of this company (*C. & D.*, January 22, p. 94), we are asked to state that the winding up is purely formal for the purpose of an amalgamation, all creditors having been paid in full.

NATIONAL DRUG AND CHEMICAL Co. OF CANADA.—A meeting of the first preference shareholders was held on January 18 at Liverpool, when Mr. Charles Gane, of London, was appointed a trustee in place of the late Sir James Hope Simpson. Mr. Gane is a member of the firm of Charles Gane & Co., of London, and is the President of the Timber Trade Federation of the United Kingdom.

G. B. KENT & SONS, LTD.—The report for the year ended September 30, 1926, states that, after allowing for bad and doubtful debts, depreciation, etc., there is a balance of profit of £7,509 18s. 1d., to which have to be added the balance brought forward from the previous year and the transfer fees. On the other hand, there are to be deducted interest on mortgages, loans, etc., directors' fees and interim dividend duly paid on the preference shares, leaving a balance of £3,844 14s. 6d. for distribution. The board have paid the usual half-yearly dividend on the preference shares, and recommend that £500 be placed to reserve, leaving £1,144 14s. 6d. to be carried forward. In last year's report attention was drawn to the difficult times through which the industry was passing. Although business during the first few months of the year now under review showed indications of a slight revival, these were entirely destroyed by the disastrous general strike in May, since which time, in common with almost all industry, the company has been suffering from the acute depression in trade which arose from the coal trouble, and it is only by the most rigid economies that the board has been enabled to pay the usual dividend on the preference shares.

Pharmaceutical Society of Great Britain

Evening Meeting in Edinburgh

THE third evening meeting of the Pharmaceutical Society in Edinburgh was held at 36 York Place, on January 19, Mr. W. G. McNab (chairman) presiding, when Dr. W. W. Taylor, of the Physiological Laboratory, Edinburgh University, gave an address on

Pharmaceutical Applications of Colloidal Chemistry

[ABSTRACT]

DR. TAYLOR first gave an historical account of colloids, dealing particularly with aurum potabile, to which in early times miraculous properties were ascribed, and which is now considered to be quite an inert substance. Outside the British Pharmacopœia, continued Dr. Taylor, there are a very considerable number of colloidal preparations which are made and extensively used. There are two general processes of preparation. The first process is to take a substance in a coarse state, a more or less concrete state of matter, and by suitable means make the particles smaller and smaller until so small that when suspended in a liquid the action of gravity does not separate them out. It is reminiscent of the homœopathic method of dilution. Precipitated sulphur is a colloidal substance ordinarily prepared by acting upon a mixture of sulphide and thiosulphate, commonly known as calcium polysulphides, which is decomposed by adding hydrochloric acid. You thus obtain a white precipitate of sulphur in a colloidal form and, as sulphur is practically insoluble in water, it remains so. Von Weimarn's method is very different. He takes ordinary crystalline sulphur and dilutes with nine parts of cane sugar or milk sugar and grinds up in a mill. If you take one part of this and dilute with nine parts of sugar and grind again, you reach another limit of fineness very much smaller than you could reach in the first stage. You take one part of this and dilute again with nine parts of sugar and grind again, and you reach a still further degree of subdivision. By doing this several times he obtained colloidal sulphur, which remained in suspension in water for long periods. Apparently there is no limitation to the smallness of the particles obtained by purely mechanical means. Colloidal mills are on the market; they vary in construction, depending on the particular substances to be ground. The other method is to begin with particles which are smaller than the colloidal particles, viz., with ions or with molecules in solution. This you separate out by precipitation or crystallisation in the form of a substance which is insoluble in the liquid. When the particles of this separated substance are the size required you fix them and prevent them growing larger.

The conditions of stability are very important from the pharmaceutical and therapeutical points of view. The first condition of stability is that the colloid shall be insoluble in the liquid in which it is suspended. If it is not very insoluble, the difficulties in making the sol are much greater; the difficulties in keeping in that condition become much more serious. Colloidal gold is a favourite substance for preparation work and illustration work, because gold is so very insoluble that it is practically impossible, if you get a good sol, for it to deteriorate. The precautions to take are, first, that the water you use shall be pure water, specially prepared water; ordinary distilled water is useless. The second is that the bottles shall be made of resistant glass, with good fitting stoppers without grease or other lubricant. Colloidal silver is more interesting therapeutically. It is made by dissolving pure silver oxide in water so as to get a saturated solution of silver oxide, about 3 in 100,000. The temperature of this solution is raised to 60°-70° C. and pure hydrogen gas passed through for 20-30 minutes, so that the silver is reduced to the metallic state in minute particles. A very pure specimen of dialysed iron can be prepared by dissolving freshly precipitated ferric hydroxide in ferric chloride solution. The ferric hydroxide passes into colloidal solution. Thus the ferric hydroxide, beginning with larger particles, by solution and etching becomes gradually dissolved or digested, becoming smaller and smaller till you reach colloidal

ferric hydroxide. To get rid of ferric chloride you dialyse, so that but ultimately you have nothing but ferric hydroxide and water. Ferric hydroxide is one of the most insoluble compounds we know of.

CONDITIONS OF STABILITY

These sols are very stable so long as they are kept free from certain impurities which may get into them accidentally or may be added. If, for example, a small quantity of salt is added to the gold sol with the bright red colour, it would immediately change to blue and then to black, and finally the gold would settle out and leave nothing but a clear liquid. In the case of the silver sol you would get a change from yellow to olive green, then grey, and ultimately the silver would settle out and leave a clear liquid. Calcium chloride with gold or silver has a much greater effect than sodium chloride. In the case of iron, however, sodium chloride has the same effect as calcium chloride, but sodium sulphate has a much greater effect than these. If you are wanting to apply colloidal gold as a therapeutic agent, you have very little hope of doing so with a pure sol, because the moment the patient swallows it it comes in contact with the contents of the stomach and you get action at once. But there is quite a large class of colloids called emulsoids, which are not particularly sensitive to salts, acids, etc. If you add a trace of gelatin or gum arabic to one of the sensitive sols you confer immunity against the reaction of salts upon them. Proteins or allied substances are generally used if the preparation is to be used for human beings or animals, as the ordinary colloidal substances in the tissues and body fluids are of this type. It is just as well, having protected your preparation against the effect of electrolytes by gum arabic or proteins or protein derivatives, to make it isotonic with the body fluids. A certain amount of gum or other protector would not protect against an indefinite amount of salt, so you cannot push the electrolyte addition too far. What is actually done is to add an electrolyte to such an extent as to arrive at a physiological balance. The solution is made isotonic so that when injected intramuscularly or intravenously it will not have a disturbing effect on the blood or tissues.

THERAPEUTICAL CONSIDERATIONS

As to the supposed advantages of colloidal preparations, the argument, I think, is twofold. The first, the one which probably makes the greater appeal, is that it is commonly accepted that vital phenomena or the vital functions of organs, whether fluids or tissues, are really concerned with colloidal materials. It seems plausible, therefore, to say that in administering or applying remedies they should be in a colloidal condition. But I am not at all sure that this has been borne out by experience. Vital phenomena and functions in plants are just as colloidal in their nature as they are in the case of animals. In his recent communication to the Society on pectins, Dr. Ogg pointed out that the root hairs in plants are coated with pectins in a colloidal form which probably act as protectors of the food supply. If so, they will protect the plant against the ingress of colloidal material. If we have colloidal material in the body analogous to the pectinous or gelatinous material on the root hairs, there can be little or no invasion of colloidal material into the body when presented in the colloidal form. In the case of ferric chloride it has been reasoned that its astringent character is undesirable, and that by administering it in the form of the colloidal dialysed iron you get rid of the astringency. But it seems very doubtful if any special value attaches to the colloidal condition of the iron. The same may be said of hæmoglobin. The other aspect of colloidal preparations is this, that the preparation can be administered in a condition which does not produce disturbing effects when introduced or applied. Colloidal silver, for example, is entirely free from the caustic action of ordinary silver salts. It can therefore be used, for example, in the treatment of eye troubles without producing these undesirable effects. It is different when you wish the medicament to reach a particular part of the organism. Clinicians assure me that it is very difficult to trace the destiny or course of

these colloidal preparations in the body. There is always danger of precipitation by contact with salts or from changes in acidity or alkalinity. There also may be variation in the "protection" of the colloidal substances. This "protection" varies according to the acid or alkali in any particular organ or tissue with which it comes in contact. It must be remembered that the concentration is usually low, only about 1 part of gold in 4,000, while in the case of the silver sol the concentration is about 3 parts in 100,000. If the sol is prepared in the presence of protecting agents much greater concentrations can be obtained. Some clinicians say that any result is due to, for example, a small percentage of silver oxide or soluble silver salt present in the sol, but the general idea is that colloids introduced in this way are deposited and slowly acted upon as the conditions of acidity or alkalinity vary. You have thus a depot of material such as iron hydroxide or manganese dioxide or other colloidal material which is in itself comparatively innocuous but which is gradually acted upon, giving rise to a small but constant supply of the substance in solution which is in real fact the therapeutic agent. There are a great many non-staining iodine preparations. Some of these are compounds of iodine with unsaturated fatty acids or other unsaturated substances. Iodine is rather soluble in water, and it is impossible to make colloidal iodine in water alone. If, however, a little gum arabic is added to the water you can then add two iodine compounds, hydriodic acid and iodic acid, and in this way you get iodine and water and nothing else. If you run the two solutions into the gum arabic solution in the right proportions they then act upon each other, producing water and iodine. You have one set of people telling you that colloidal preparations are extremely active, and another set of people find that colloidal preparations of a substance are less active than in the ordinary state. Iodine itself dissolved in potassium iodide in water or in alcohol is fairly toxic. Colloidal iodine or similar concentration is very much less toxic. For instance, Dr. Lambie prepared colloidal iodine in the above manner and found he could inject into an animal many times the lethal dose of iodine, dissolved in the ordinary way, without producing the faintest inconvenience or disturbance in the animal. The contention of colloidal therapists that such preparations are less toxic on the human subject but more toxic on bacterial organisms may or may not be well founded. In Dr. Lambie's experiments it was found that colloidal iodine was quite ineffective in the treatment of certain bacterial diseases which had been introduced into animals. There is a possibility that these deposits to which I have alluded may in a state of fine division catalyse or hurry up normal reactions which take place in the body. In some cases they may actually replace the normal body function in the process of oxidation or the decomposition of hydrogen peroxide so as to enable the body to carry on until restoration has taken place.

(Dr. Taylor, by means of the demonstration lantern, illustrated the various points in his address.)

Discussion

The CHAIRMAN said they had learned many things, no doubt, which they had not till now known. The experiments had been very successful in demonstrating the points referred to by the lecturer.

Dr. Ogg said that Dr. Taylor was fortunate, or unfortunate, in being the exponent of an entirely new science which was changing from day to day. Dr. Taylor was himself a distinguished pioneer in that new science, although he had carefully avoided referring to his own large share in this department. A few years ago there was no English text-book dealing adequately with this subject, and Dr. Taylor's handbook was one of the first to present the new science to British readers. Chemistry had suffered in the past from lack of knowledge of colloids. Dr. Taylor's reference to the pectic substances on root hairs was quite correct. There was recognised to be a thin layer of pectic substances over the root hair. The theory put forward by Dr. Taylor is a very likely one, as this had to do with the entry of the plant food into the cells.

Dr. TAIT asked Dr. Taylor if he would go so far as

to say that these colloidal preparations were of no therapeutic value. The question arose whether the injecting of these substances into the body would give rise to conditions which would destroy the supposed usefulness of the colloidal condition.

Mr. WILSON said it seemed rather significant that colloidal preparations had disappeared from the Pharmacopœia just at the time when the question of colloidal substances was coming into prominence. If they were effective, their use might lead to simplification in dispensing. One practical difficulty might be the necessity for having these preparations dispensed in bottles of a special kind of glass, and with various other precautions. The preparation might be all right when dispensed, but one might wonder whether it would retain its stability with frequent openings of the bottles after being sent out. The analogy in the process of subdivision with the principles of homœopathy suggested some reserve in their readiness to treat homœopathic conceptions with contempt. The general tendency in therapeutics to-day was in the direction of giving smaller doses.

Dr. TAYLOR, in replying, said he would like to say something about the rather thorny question raised by Dr. Tait as to whether these preparations have any value at all. On the clinical evidence, he thought it was indicated that these preparations were not of therapeutic value, but he was a chemist and not a clinician. In some cases they undoubtedly had advantages, as, for example, in the case of colloidal silver, particularly in applications to the eye. Whether there can be similar conditions reproduced in internal administration he was unable to say, as the alterations which colloidal substances undergo in the body are very difficult to trace. A clinical friend had mentioned a case in which colloidal manganese was assumed to have produced miraculous effects in the treatment of boils in the hands of one of his friends. He borrowed the bottle from this friend to see what it was like. He discovered that the colloidal preparation had lost its stability, the whole of the manganese being at the bottom of the bottle. In using it his friend had not shaken up the bottle, and it could easily be seen that in all probability the patient had recovered from the illness by natural causes rather than by any effect due to the supposed action of colloidal manganese. It was impossible to speak with any confidence therapeutically.

Dr. DRYERRE, in moving a vote of thanks to Dr. Taylor, said that he and a colleague had the curiosity to try the effects of a free sample of colloidal iodine on a dog. After an injection of the colloidal iodine they found that the calcium content of the blood had increased by 20 per cent. He would hardly suggest that necessarily this was a case of cause and effect, but the point was interesting in connection with the question as to whether colloidal preparations had any therapeutic value. Dr. Taylor was a master of his subject.

The next communication was:—

The Oxalate Content of *Rumex Acetosa* and *Oxalis Acetosella*

BY ISABELLA A. PURDIE, PH.C.

[ABSTRACT]

I EXAMINED the plants *Rumex Acetosa*, common sorrel, and *Oxalis Acetosella*, wood sorrel, with a view to ascertain whether the potassium salt in the plants was binoxalate or quadroxalate, what quantity of the salt the plants contained, and whether they contained any free acid. The fresh plant of *Rumex* was collected in July, weighed, pressed and repressed till no more juice could be extracted and the residue was practically dry. From 1,500 grams of fresh plant, 1,220 grams of juice was obtained. The fresh plant of *Oxalis* was collected in September, and by similar means 405 grams of juice was obtained from 575 grams of fresh plant. It is to be noted that the two plants were collected at different times of the year. This point may have importance because it is on record that the acidity of the two plants diminishes as the season advances. There may be other factors causing variations in the amount of the oxalate present. The juice from both *Rumex* and *Oxalis* was preserved by adding chloroform. The *Rumex* juice

showed a brownish colour, while the *Oxalis* juice was distinctly reddish, due doubtless to the red colour of the *Oxalis* stems. The chlorophyll was removed from the juice by washing out with chloroform. The juice was then filtered through pure powdered animal charcoal and in this way the juice was obtained as a water-white solution. It was ascertained that there was no loss of oxalate in this process. On titration with $N/10$ sodium hydroxide solution the *Rumex* juice indicated acidity of 0.82 per cent. calculated as oxalic acid, $H_2C_2O_4$. A quantity of the juice evaporated to dryness and the residue incinerated and titrated with $N/100$ hydrochloric acid indicated 0.63 per cent. potassium carbonate. These figures indicate that *Rumex Acetosa* contains 1.36 per cent. of potassium binoxalate, $KHC_2O_4 \cdot H_2O$. The *Oxalis* juice similarly estimated gave acidity 0.45 per cent. calculated as oxalic acid, and 0.4 per cent. of K_2CO_3 . These figures indicate that *Oxalis Acetosella* contains 0.86 per cent. of potassium binoxalate. This lower percentage in *Oxalis* is what one would naturally expect, as *Rumex* is distinctly more acid to the taste. The percentage of oxalate, which is not large, is also in keeping with the statement referred to in my previous paper as occurring in Quincy's English Dispensary, 1753, namely, "The process for obtaining these salts is very tedious, inasmuch as scarce to be completed in less than seven or eight months, and the quantity of the salt which the juices afford is extremely small." It is also evident that potassium binoxalate and not potassium quadroxalate is the salt occurring in both plants. Christison's Dispensary (1842, page 3) states that Neumann obtained from 20 lb. of *Oxalis Acetosella* 2½ oz. of pure potassium binoxalate. That is practically 0.7 per cent. I have to thank Mr. Eric Knott, Ph.C., for facilities in carrying out this work in the laboratory of the Royal Dispensary.

Mr. HILL said that this communication had involved a very considerable amount of careful work. It was an interesting sequel to the paper on salt of sorrel communicated by Miss Purdie last session. He thought it was well that practical work of this kind should be recorded, if for no other reason than to be a help to other investigators who might be traversing the same ground. So far it did not appear that any detailed examination of this kind had been carried out by previous investigators.

The last communication was:—

What is Meant by the Principle of "De Minimis non Curat Lex"?

By J. RUTHERFORD HILL, Ph.C.

[ABSTRACT]

THIS principle of law has been brought into prominence of late as a consequence of the Labelling of Poisons Order in Council under the Dangerous Drugs and Pharmacy (Amendment) Act, 1923. Though it has been laid down that nothing in the foregoing Act makes anything a poison that was not previously a poison, it has been found that in actual practice it has raised some perplexing problems, and many questions have been asked. The literal translation of the sentence is "the law does not trouble itself concerning very small things." In Erskine's "Institutes of the Law of Scotland" (1773) the similar phrase "de minimis non curat prætor" occurs, in which "prætor" (the magistrate) takes the place of "lex." It is used in describing legal procedure in the disposition of money. Broom's Maxims, 7th edition, translates the phrase "de minimis non curat lex" by "the law cares not about very trifling matters," and adds: "Therefore the Courts will not, as a rule, take notice of fractions of a day; or grant a new trial on the ground of the verdict being against evidence, if the damages were less than £20." The same principle in this connection is expressed in Wharton's Law Lexicon in the phrase "fractionem diei non recipit lex," which is translated, "The law does not take notice of a portion of a day." In Mozley and Whiteley's Law Directory it is translated, "The law takes no account of very trifling matters."

Coming to the pharmaceutical aspect of the question, it may be said to raise the curious question, "When is a poison not a poison?" The question really emerged

first immediately after the Pharmacy Act, 1868, came into operation. Very soon the inexpediency of statutory restrictive regulations which must be carried out, no matter what the circumstances may be, as required by Section 17 of the 1868 Act, became apparent. There was in extensive use cough lozenges called paregoric lozenges, which may be taken as illustrative of several similar articles. These contained a small quantity of opium, and the question was whether they must be labelled "Poison." It was rightly thought absurd to do so. To do so would not only alarm people, but it would destroy the real purpose of making the word "Poison" a warning that the article was dangerous. The Council of the Society asked a ruling from the Privy Council, and in March 1869 got a reply to the question as to how to apply the language of the Pharmacy Act, 1868, "to the case of such pharmaceutical compounds as contain some scheduled 'Poison' in extremely small and practically non-poisonous quantity." The reply said that my Lords of the Privy Council were of opinion "That the 'preparation' of a poison in the Pharmacy Act, 1868, means a compound which, like the poison of which it is a preparation, is in itself deadly or dangerous, and that it does not mean a compound which is in itself perfectly harmless, although into its composition may enter a poison, or the preparation of a poison, which, taken alone, would be dangerous or deadly. My Lords apprehend that questions of fact must be dealt with as they arise; for it is possible to take so much of a compound perfectly harmless if taken in reasonable quantities (e.g., carbonate of soda) as to destroy life, and it is possible that a particular paregoric lozenge might contain a deadly amount of poison; but it seems to their Lordships that, for general purposes, and as a matter of legal interpretation, these extreme and barely supposable cases may be disregarded, and that the Pharmaceutical Society may safely act upon the test given above. My Lords, however, are advised that it is not feasible to define the precise proportion of poison in any preparation which may bring it within the Act."

There is a subtle fallacy in the so-called test which runs through and in my view vitiates almost all the dicta and decisions which attempt to define a poison. It was found prior to 1868 quite impossible to define in statute law what is a poison from the point of view of being poisonous or, as the Privy Council letter says, "deadly or dangerous." That difficulty was overcome in the 1868 Act by saying, "The several Articles named or described in the Schedule (A) shall be deemed to be Poisons within the meaning of this Act." By that means the question "Is this article poisonous or deadly or dangerous?" does not arise at all and is quite irrelevant. The only question is "Is this article named in the Schedule (A)?" If it is named, then it is a poison within the meaning of the Act, whether it is poisonous or not. It will be seen that while the Privy Council practically suggested that the cases cited came within the principle "de minimis non curat lex," they really left each case to be decided on its merits.

The point came up again in the case of *Society v. Piper*, in which it was contended for the defence that although chlorodyne contained a small quantity of opium and chloroform, it was not properly a preparation of opium or chloroform within the meaning of the Schedule, and therefore was not struck at by the Act. The Court of Queen's Bench decided against this contention; but in giving judgment Justice Collins said: "When you once get to that, the question of more or less scheduled poison in the compound does not appear to me to have any technical bearing on the discussion until you get down to that other principle of law, 'de minimis non curat lex.' But, as I have already said, it is not necessary for me to lay down any principle beyond what is applicable to this particular case, and in this particular case there can be no sort of doubt that the poisonous element of scheduled poison is a very large factor in the total composition." This is the first occurrence of the phrase in connection with a Pharmacy Act case, and it seems not unlikely it suggested the defence for the next case in the same year. This was *Society v. Delve*, in which the charge was for selling cough mixture containing

morphine. Mr. Eastes, the analyst, was unable to state the quantity of morphine present; and the County Court judge dismissed the case on the ground that the quantity of morphine might have been infinitesimal and therefore came into the category of "de minimis non curat lex." On appeal to the Court of Queen's Bench this decision was confirmed. In the debate it was argued that when the quantity of morphine was so small as to be infinitesimal the principle "de minimis non curat lex" applied; the Court treated the poison as non-existent, and therefore no offence had been committed when it was sold by an unqualified person.

A PRESENT-DAY PROBLEM

The question comes up again in connection with the Labelling of Poisons Order. We have questions raised about many articles not previously labelled "Poison," but which certainly contain a scheduled poison. There are such things as Hamilton's pills, cough mixtures with a small quantity of opium, ipecacuanha wine. It might well be that many of these would come under the ruling of "de minimis non curat lex," and that would mean they did not need a "Poison" label. But it would appear that in each case the matter would need to be settled on its merits by the Court. There is one interesting point, however. In the various debates it was said more than once that if the quantity of poison was negligible, then it would come within the definition "de minimis non curat lex." The United States Pharmacopœia X says: "The term 'negligible' when used in this Pharmacopœia means a quantity not exceeding 0.0005 gram." Here we have a definite quantity which might be a guide in deciding when the principle of "de minimis non curat lex" comes into operation, or, in other words, "when a poison is not a poison." It will be noted it is not a percentage quantity, but the total quantity sold at one time must not exceed 1/125th of a grain. In these days of hormones, vitamins, insulin and bacteria we have learned the tremendous power of very small things, and one is a little inclined to question the application of the principle of "de minimis non curat lex" in the case of poisons. It may lend itself to many dangerous practices. True, I may not be able to purchase more than 1/125th gr. of strychnine at one time. But it might be put up in tablets, and I could purchase another one every few minutes till I got a really deadly dose of strychnine. And the tablets could be sold by anyone and no "Poison" label would be required, nor would the name and address of the seller. We have, of course, in ordinary pharmaceutical substances many examples of articles which contain arsenic. We have, for example, cream of tartar which may contain 2 per million of arsenic, borax may contain 5 per million, and zinc oxide may contain 10 per million, so that by buying a large quantity it would be possible to come into possession of a considerable quantity of arsenic outside the operation of the Poisons and Pharmacy Acts. Before the principle of "de minimis non curat lex" can be considered, therefore, it would be necessary to know the quantity of these substances sold. But it does raise this consideration, 0.001 gram of arsenic as in zinc oxide is double the U.S.P. limit for a quantity to be described as negligible. Does that mean that if we adopt the U.S.P. quantity as a standard, zinc oxide would always need to be labelled "Poison"?

Prior to the Licorine case it had always been held that if you could prove the presence of a scheduled poison the quantity was immaterial, and no attempt was ever made to prove the quantity. There is a great deal to be said for this view of absolute prohibition. In any case, the demand for proof that the poison is deadly or dangerous is quite unjustified, and the whole of the debates and *obiter dicta* and decisions based on such a demand or proof proceed on wrong lines in view of the terms of Section 2 of the Pharmacy Act, 1868. One really comes to the conclusion that a charge of selling poison should be competent if the prosecutor proves the presence of a poison named or described in the Schedule in a quantity so substantial and appreciable as to make its presence clearly demonstrable by reliable analytical tests without any reference to the question whether or not the quantity is deadly or dangerous. It would be in the discretion of the prosecutor to decide to take no proceedings if he considered the quantity of any particular poison in the

circumstances so trifling as to make proceedings in the public interest unnecessary. So long as the procedure is by the registrar in name and by authority of the Council of the Pharmaceutical Society, with ample expert knowledge of all that is involved to secure public safety, this method would work more satisfactorily than any other plan that has been suggested. The principle of "de minimis non curat lex" in its application to poisons would be settled by an expert tribunal more satisfactorily than by the ordinary judicatory. There would still, of course, remain for the defender the protection of the Court in the very unlikely event of an unreasonable charge by the prosecutor, for in the ultimate result the judicatory must determine when the defence of "de minimis non curat lex" has been established.

Branch Meetings

Blackburn.—A meeting of the Blackburn Branch was held on December 15. Mr. S. H. Sidebottom (Accrington) presiding. Mr. H. Antcliffe (Sheffield), a member of the Council, gave an address on *Pharmaceutical Topics*. He mentioned that his first experience in Council work was at the time that Mr. R. L. Gifford, J.P., of Blackburn, was chairman of the Law Committee, and he appreciated the work which that gentleman had done. Just now the country was in a state of industrial depression, and if he were to reveal the work of the Benevolent Fund Committee, he felt sure they would be very much disturbed. Thrifty pharmacists had left their families comfortably off with investments in industrial concerns, and now the collapse of trade had left these unfortunate people in a regrettable position. Regarding the Retail Pharmacists' Union, he thought that it had performed useful service during the short time it had been in existence. The Union and the Society worked harmoniously together, and it would, indeed, be lamentable if these relationships were ever interfered with. He trusted that headway would continue to be made. On organisation work he held the view that some method should be devised for obtaining branch opinion on vital issues before the Society took action. To his mind, it was possible to formulate some scheme for ascertaining the opinion of the chemists in this way. After all, it was their Society, and they were there to carry out the wishes of the country. The old general meeting appeared somewhat out of date, and a change might advantageously be introduced whereby the views of the branches were made known and voting was based on membership. He felt that some such scheme would make the branches into real live bodies. Alterations had been made of late, and two women examiners were doing good work, whilst they had five whole-time inspectors on the law side against two part-time inspectors originally. He thought Mr. Gifford would agree with him that in the early days they were not quite keen enough, and if they were to allow drug stores and the unqualified to sell poisons, then it was no use having protection. In this matter they looked for assistance to the branch members, and real cases of infringement would be investigated. They wanted to be able to take cases into Court and not be content with the payment of fines and the avoidance of publicity. In addition, it was their duty to watch their own people and see that they observed the regulations. In any new legislation he hoped they would get the title of chemist and druggist more clearly defined than it was at the present time. The pharmacy law required bringing up to date. In this respect they were the only profession without a representative in Parliament, but they had a tried candidate in Mr. E. T. Neathercoat. Efforts were being made to deprive them of the title of chemist, and this must be keenly resisted. If they were ever a party to this sacrifice, the title would have gone for ever. It would take all their weight to resist this movement, and they must never give way. Looking back over the last 30 years, they were bound to say that the chemist was in a better position, but there was still a lot of pin-pricks which they hoped the Privy Council Committee would deal with. Whilst legislation was needed, they had the anomaly of the Government going to absurd extent with regard to dangerous drugs, but they did not take sufficient steps concerning poisonous substances.

Specifications for Purity of Analytical Reagents

THE Committee of Guaranteed Reagents appointed by the American Chemical Society have prepared twenty-three "tentative" specifications for analytical reagents during the year 1925-26, which are published in Industrial and Engineering Chemistry for June (p. 636) and July (p. 759). The chairman (Mr. W. D. Collins) in a covering letter states:—

"The recommended specifications do not appear to be strikingly different from others that have been published. Careful comparison, however, will show that they are more definite in the description of tests and more accurate as regards the limits represented by the tests."

These specifications (designated U.S. for identification purposes) are summarised below in comparison with European standards. The increasing interest displayed in standards for reagent chemicals is an outcome of the Great War, as witness the "List of Reagents for Analytical Purposes," published in 1915 by the Institute of Chemistry and the Society of Public Analysts (which has not been republished and is decidedly out of date). The comparisons below are interesting, inasmuch as they represent advances made since 1914. Though Merck's "Prüfung der Chemischen Reagenzien auf Reinheit" of 1912 is used as a pre-war standard, it is only fair to mention that E. White's "Analytical Reagents" was also published prior to 1914, and was available to help in setting up war-time standards in this country. The works on analytical reagents compared with the American specifications for reagent chemicals are:—

1926.—The B.D.H. Book of A. R. Standards.

1925.—White, E. Analytical Reagents, Standards and Tests.

1922.—Merck, E. Prüfung der Chemischen Reagenzien auf Reinheit, 3rd ed.

1912.—Merck, E. Prüfung der Chemischen Reagenzien auf Reinheit, 2nd ed.

The "Requirements" in the U.S. specifications (which represent an attempt to stipulate precise limits of impurity) are given in full for each reagent, but, as regards the descriptions of "tests" to be applied, only the modifications of special interest are noted. Definite limits refer to specified percentages: the figure 0.0005 for chlorine is acetic anhydride representing a limit of one part in 200,000. In the U.S. specifications it is directed (except for acetone) that blank tests be made on water and all reagents unless the directions provide for the elimination of impurities. In tests on inorganic chemicals it is added that the solutions of the sample must be filtered for tests in which insoluble matter would interfere.

The U.S. "chlorine" and "sulphate" estimations are turbidimetric comparisons against standard solution similar to U.S.P. or occasionally gravimetric. Other new tests are given under the reagent in which they first occur. Though approximate limits are given in the specifications for heavy metals, the test is qualitative, consisting in passing sulphuretted hydrogen into a solution of sample made alkaline with ammonium hydroxide; the requirements being "no brown colour" for lead whilst a green coloration after ammonium sulphide has been added is compared against a dilute standard test solution of iron treated similarly. The letter "Q" indicates that the test applied is qualitative, such as not "appear opalescent" or "show a turbidity" in test for chloride with silver nitrate:—

Acetic Anhydride					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay ..	90	95	95-98	99	—
Non-volatile matter ..	0.003	0.05	Q	Q	Q
Chloride (Cl) ..	0.0005	Q	Q	Q	Q
Sulphate (SO ₄) ..	0.0005	Q	—	Q	—
Phosphate (PO ₄) ..	0.001	Q	—	—	—
Subs. reducing KMnO ₄ ..	Q	—	—	—	—
Heavy metals ..	{ (0.0005 Pb) abt. 0.001 Fe }		Q	—	—
Molecular weight ..	—	102.048	—	102.07	102.05
Boiling point ..	—	abt. 138°	138°	abt. 137°	abt. 137°
Specific gravity ..	—	1.08	1.080	1.085	1.085

The U.S. assay process follows Merck (1922) in using freshly distilled aniline for titration of acid to be deducted in calculating actual acetic anhydride, but only 5 c.c. are used to 2 gm. of acetic anhydride compared with 20 c.c. of aniline by Merck; and 20 c.c. of dry benzene and 10 c.c. of dry aniline in 20 c.c. of dry benzene in B.D.H. assay. Phosphate is compared as precipitated ammonium molybdate. The test for substances reducing permanganate consists in adding 0.4 c.c. of decinormal permanganate to 2 c.c. of acetic anhydride and 10 c.c. of water. The colour is not to be discharged at the end of five minutes. The B.D.H. book has a qualitative test for higher homologues:—

Acetone					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay ..	99.5	—	—	—	—
Non-volatile matter ..	0.001	0.002	Q	Q	Q
Solubility in water ..	1 in 1	—	—	1 in 1	1 in 1
Acids (as acetic) ..	0.003	—	—	Q	Q
Alkaline subs. (as NH ₃) ..	0.001	—	—	—	—
Aldehyde ..	Q	—	—	Q	Q
Subs. reducing KMnO ₄ ..	Q	Q	Q	Q	Q
Molecular weight ..	—	58.048	—	58.05	58.04
Boiling point ..	55.5°-57.5°	56-58°	56-58°	55-56°	55-56°
Specific gravity ..	—	0.797-0.798	0.797-0.798	0.798	0.798

Merck (1922) includes an iodometric assay not given in 1912 edition, and U.S. specification designates U.S.P. X assay test. B.D.H. and U.S. specifications for permanganate reduction are identical, and both Merck and U.S. specifications use ammonical silver nitrate as test for aldehyde. Merck (1922) includes tests (for methyl alcohol, esters, and miscibility with light petroleum) not included in U.S. tests.

Acid Acetic Glacial					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay ..	99.5°	99.5	99.5	99	96
Dilution test ..	Q	—	—	—	—
Non-volatile matter ..	0.001	Q	—	Q	Q
Chloride (Cl) ..	0.0002	Q	Q	Q	Q
Sulphate (SO ₄) ..	0.0003	Q	Q	Q	Q
Subs. reducing KMnO ₄ ..	Q	Q	Q	Q	Q
Heavy metals ..	{ (0.0005 Pb) abt. 0.0002 Fe }		Q	Q	Q
Molecular weight ..	—	60.032	—	60.02	60.03
Freezing point (not below) ..	15.7°	15.0°	—	15-16°	abt. 10°
Melting point (not below) ..	—	15.5°	15.5°	—	—
Boiling point ..	—	—	119	115-118°	110-119°
Specific gravity ..	—	—	1.056	1.055-1.058	max. 1.064

Merck (1922) gives tests for formic acid, acetaldehyde and ethyl alcohol not in U.S. or other specifications, and White tests for sulphurous acid.

Acid Hydrofluoric					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay (not less than) ..	46	40	40	38-40	38-40
Fluosilicic acid (H ₂ SiF ₆) ..	0.25	Q	Q	—	Q
Non-volatile matter ..	0.003	0.02	0.05	0.005	0.005
Chloride (Cl) ..	0.003	—	—	Q	Q
Sulphate (SO ₄) ..	0.005	Q	Q	Q	Q
Sulphite (SO ₃) ..	0.01	—	—	Q	Q
Heavy metals (Pb) ..	Q	Q	Q	Q	Q
Iron (Fe) ..	{ (0.0005 Pb) abt. 0.0005 }		Q	Q	Q
Molecular weight ..	—	20.008	—	20.01	20.01

In the U.S. assay about 10 c.c. of saturated solution of potassium nitrate and about 50 c.c. of normal sodium hydroxide solution (with three drops of phenolphthalein indicator) are placed in platinum dish and cooled to 0° C. and the weighed sample of acid under test added. Titration with alkali is continued until pink colour persists for 15 seconds at temperature near to 0° C. After heating to 80° C. the titration is continued to a permanent pink, which increase (B) corresponds to two-thirds of the fluosilicic acid ($= \frac{3.602 B}{\text{weight taken}}$). Merck (1922 and 1912) tests also for calcium and magnesium.

Acid Perchloric					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay (not less than)	20	20	20	20	20
Non-volatile matter	0.015	0.02	0.06	Q	Q
Chloride (Cl) ..	0.001	Q	Q	Q	Q
Nitrogen compounds (as N) ..	0.004	—	—	—	—
Sulphate (SO ₄) ..	0.005	Q	Q	Q	Q
Ammonia (NH ₃) ..	0.001	—	—	—	—
Heavy metals ..	{ Q (0.0005 Pb) abt. (0.0001Fe) }		Q	Q	Q
Molecular weight	—	100.465	—	100.47	100.47
Specific gravity (abt.)	—	1.12	1.12	1.12	1.12

The U.S. specification uses Nessler's reagent for colorimetric estimation of ammonia; and for nitrogen (after reduction with aluminium wire in caustic soda solution). Merck, White and B.D.H. give qualitative tests for barium. Merck also requires absence of precipitation on mixing with an equal part of 94 per cent. (w/w) alcohol.

Aluminium and Potassium Sulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.005	—	—	—	—
Chloride (Cl) ..	0.0005	Q	—	—	—
Ammonia (NH ₃) ..	0.005	Q	—	—	—
Arsenic (As) ..	0.0002	—	—	—	—
Heavy metal (Pb) ..	Q(0.001)	Q	—	—	—
Iron (Fe) ..	0.001	Q	—	—	—
Molecular weight	—	948.772	—	—	—

In U.S. specification, ammonia is determined by Nesslerising, and arsenic by the Gutzeit method. Iron is estimated colorimetrically as pink ferric thiocyanate.

Ammonium Acetate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.005	—	—	—	—
Non-volatile matter	0.010	0.02	—	—	—
Chloride (Cl) ..	0.0005	Q	—	Q	Q
Nitrate (NO ₃) ..	0.001	—	—	—	—
Sulphate (SO ₄) ..	0.001	Q	—	Q	Q
Heavy metal (Pb) ..	Q(0.0005)	Q	—	Q	Q
Iron (Fe) ..	0.0005	Q	—	Q	Q
Molecular weight	—	77.064	—	—	77.07

Merck (1922 and 1912) tests for alkali-earths impurities.

Ammonium Carbonate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay (NH ₃) ..	30	31	—	31	31.76
Insoluble matter	0.005	—	—	—	—
Non-volatile matter	0.005	0.02	—	—	—
Chloride (Cl) ..	0.0005	Q	—	Q	Q
Nitrate (NO ₃) ..	0.001	—	—	—	—
Sulphate (SO ₄) ..	0.001	Q	—	Q	Q
Heavy metal (Pb) ..	Q	Q	—	Q	Q
Iron (Fe) ..	Q(0.0005)	Q	—	Q	Q
Arsenic (As) ..	0.0005	Q	—	Q	Q
	—	0.00001	—	—	—

B.D.H. and White include tests for tarry matter. B.D.H. and Merck test for thiocyanates, and the latter also for tar bases, phosphates, and calcium.

Ammonium Chloride					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.005	—	—	—	—
Non-volatile matter	0.015	0.01	0.01	—	—
Free acid	Q	—	—	—	—
Phosphate (PO ₄) ..	0.0003	—	—	Q	Q
Sulphate (SO ₄) ..	0.002	Q	Q	Q	Q
Calcium and magnesium	0.002	—	—	Q	Q
Heavy metal (Pb) ..	Q	Q	Q	Q	Q
Iron (Fe) ..	Q(0.0005)	Q	Q	Q	Q
Arsenic	0.0005	Q	Q	Q	Q
Molecular weight	—	53.497	—	53.50	53.50

B.D.H. test for tarry matter, White for tarry impurities and thiocyanates, and Merck for tar bases, pyridine and thiocyanates.

Ammonium Persulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay ..	85	—	—	95	95
Insoluble matter	0.040	—	—	—	—
Non-volatile matter	0.25	—	—	0.06	—
Chloride (Cl) ..	0.001	—	—	Q	Q
Manganese (Mn) ..	0.0001	—	—	—	—
Heavy metals (as oxides) ..	0.030	—	—	Q	Q
Molecular weight	—	—	—	228.2	228.22

Both the U.S. specification and Merck use iodometric methods of assay. The manganese is tested for in U.S. specification by conversion into permanganate.

Ammonium Sulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.005	—	—	—	—
Non-volatile matter	0.010	0.02	0.02	Q	Q
Free acid	Q	—	—	—	—
Chloride (Cl) ..	0.0005	Q	Q	Q	Q
Nitrate (NO ₃) ..	0.001	—	—	Q	Q
Phosphate (PO ₄) ..	0.0005	—	—	Q	Q
Arsenic (As) ..	0.0005	0.0001	—	—	—
Heavy metal (Pb) ..	Q	Q	Q	Q	Q
	(0.0005)	—	—	—	—
Iron (Fe) ..	abt.	—	—	—	—
	0.0005	Q	Q	Q	Q
Molecular weight	—	132.144	—	132.15	132.15

B.D.H. specifies maximum moisture content. White, B.D.H. and Merck all test for thiocyanates.

Amyl Alcohol (Isoamyl Alcohol)					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Non-volatile matter	0.003	Q	—	—	—
Boiling range	128-132°	130-132°	—	131°	131°
Acids and esters (as amyl acetate) ..	0.06	—	—	—	—
Aldehydes ..	Q	—	—	—	—
Furfural and organic impurities ..	Q	Q	—	Q	Q
Molecular weight	—	88.096	—	88.12	88.10
Specific gravity	—	0.812-0.815	—	0.814	—

Merck gives tests for oily impurities and water. B.D.H. examines for oily impurities and solubility in hydrochloric acid.

Ferric Ammonium Sulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.010	—	—	—	—
Chloride (Cl) ..	0.001	—	—	Q	Q
Copper (Cu) ..	Q	—	—	Q	Q
Ferrous iron (Fe) ..	Q	—	—	—	—
Manganese (Mn) ..	0.05	—	—	0.04	0.04
Alkali salts ..	Q	—	—	Q	Q
Zinc (Zn) ..	Q	—	—	—	—
Molecular weight	—	—	—	964.45	—

Merck includes iodometric assay and (in 1922) a test for manganese. The U.S. specification limits for copper (0.005), zinc (0.005), and ferrous iron (0.001) are qualitative, and similar to those of Merck. The appearance is also given as pale violet crystals.

Ferrous Ammonium Sulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.010	—	—	—	—
Phosphate (PO ₄) ..	0.003	—	—	—	—
Copper (Cu) ..	Q	—	—	Q	Q
Ferric iron ..	0.010	—	—	Q	Q
Manganese (Mn) ..	0.015	—	—	—	—
Alkali salts ..	0.050	—	0.06	Q	Q
Zinc (Zn) ..	Q	—	Q	Q	Q
Molecular weight	—	392.144	—	392.16	392.17

The U.S. specification states in the title that this iron compound is "Not a Primary Standard." The ferric iron is determined colorimetrically as thiocyanate. Manganese is estimated against potassium permanganate, sodium bismuthate being added to both sample and standard after oxidation with nitric acid (15 c.c. in 45 c.c. of water, with boiling to expel oxides of nitrogen).

Potassium Carbonate, Anhydrous					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter	0.020	—	—	—	—
Loss on ignition	1.0	—	—	—	—
Chloride and chlorate (as Cl) ..	0.003	Q	Q	Q	Q
Sulphur compounds (as SO ₄) ..	0.004	Q	Q	Q	Q
Nitrogen compounds (as N) ..	0.001	Q	Q	Q	Q
Phosphate (PO ₄) ..	0.005	—	—	Q	Q
Silica ..	0.005	—	—	Q	Q
Calcium and magnesium precipitate ..	0.015	—	—	Q	Q
Arsenic (As) ..	0.0003	0.0001	—	—	—
Sodium (Na) ..	Q(0.02)	—	—	—	—
Heavy metals ..	Q(Pb)	Q	Q	Q	Q
	0.001 (Fe)	—	—	—	—
Molecular weight	—	138.192	—	138.20	138.20
Assay ..	—	99	98	99	99

The U.S. specification gives a limit of 0.02 per cent. for sodium flame test with a 20 per cent. solution on a platinum wire. Merck (1922 and 1912) tests for cyanide.

Potassium Chloride					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.010	—	—	—	—
Neutrality ..	Q	Q	—	—	—
Chlorate and nitrate (as ClO ₃) ..	Q (0.005)	Q	—	Q	Q
Nitrogen compounds (as N) ..	0.001	—	—	—	—
Phosphate (PO ₄) ..	0.002	—	—	—	—
Sulphate (SO ₄) ..	0.005	Q	Q	Q	Q
Barium (Ba) ..	0.001	Q	—	—	—
Calcium, magnesium, etc. ..	0.005	Q	Q	Q	Q
Heavy metals (Pb) ..	0.0005	Q	Q	Q	Q
Iron (Fe) ..	0.0003	Q	Q	Q	Q
Sodium (Na) ..	—	—	—	—	—
Molecular weight ..	(0.02)	75.553	—	74.56	74.56

A calcium magnesium and ammonium hydroxide precipitate is obtained by precipitating solution of sample in water with ammonium oxalate and ammonium phosphate in the presence of ammonia. Chlorate and nitrate are estimated by absence of coloured ring with diphenylamine and sulphuric acid. B.D.H. and Merck use the indigo test. Merck tests also for chlorate by zinc-iodide starch solution with hydrochloric acid. B.D.H. give moisture limit (0.05).

Potassium Permanganate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Chloride and chlorate (as Cl) ..	0.003	Q	Q	Q	Q
Nitrogen compounds (as N) ..	0.003	Q	Q	Q	Q
Sulphate (SO ₄) ..	0.004	Q	Q	Q	Q
Arsenic ..	—	—	—	Marsh	—
Molecular weight ..	—	158.026	—	158.03	158.03
Assay ..	—	—	99.7	—	—

Appearance is described in all specifications. B.D.H. and White give solubility tests. Merck mentions specially a sulphuric acid free reagent which is stated to be about 100 per cent. purity.

Potassium Sulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.010	—	—	—	—
Neutrality ..	Q	—	—	Q	Q
Chloride (Cl) ..	0.001	Q	Q	Q	Q
Nitrogen compounds (as N) ..	0.0005	—	—	Q	Q
Arsenic (As) ..	0.0002	0.0015	—	—	—
Calcium, magnesium, etc. ..	0.02	—	—	Q	Q
Heavy metals (Pb) ..	Q (0.0005)	Q	Q	Q	Q
Iron (Fe) ..	0.0005	Q	Q	Q	Q
Sodium (Na) ..	Q (0.03)	—	—	—	—
Molecular weight ..	—	174.256	—	174.27	174.27

Sodium Bicarbonate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.020	—	—	—	—
Assay ..	99.8-100.3	99.5	—	99.9	99.9
Chloride (Cl) ..	0.003	—	—	Q	Q
Sulphate (SO ₄) ..	0.003	Q	Q	Q	Q
Phosphate (PO ₄) ..	0.002	—	—	Q	Q
Calcium, magnesium, etc. ..	0.010	—	—	—	—
Potassium (K) ..	0.02	—	—	Q	Q
Ammonium (NH ₃) ..	0.0005	Q	Q	Q	Q
Heavy metals ..	Q (0.0005) (Pb) abt. 0.001 Fe	Q	Q	Q	Q
Molecular weight ..	—	84.005	—	84.01	84.01

The U.S. specification determines potassium as cobaltinitrite. White tests for carbonate, silica and thiocyanate. B.D.H. examines for carbonate also. Merck tests for carbonate, silica, thiocyanate.

Sodium Carbonate, Anhydrous					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.020	—	—	—	—
Loss on ignition ..	1.0	—	—	—	—
Chloride (Cl) ..	—	—	Q	Q	Q
Sulphur compounds (as SO ₄) ..	0.004	Q	Q	Q	Q
Nitrogen compounds (as N) ..	0.001	Q	Q	Q	Q
Phosphate (PO ₄) ..	0.010	—	—	Q	Q
Silica and ammonia ppt. ..	Q (0.005) (SiO ₂)	—	Q	Q	Q
Calcium and magnesium ..	0.015	—	—	Q	Q
Potassium (K) ..	0.02	—	—	Q	Q

	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Arsenic (As) ..	0.0003	0.0002	—	—	—
Heavy Metals ..	Q (0.0005 Pb) abt. 0.001 Fe	Q	Q	Q	Q
Molecular weight ..	—	105.994	—	106.0	106.0
Assay ..	—	99.9	98.100	99-100	99.100

Sodium Cyanide					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Assay ..	95	—	—	—	—
Chloride ..	0.020	—	—	—	—
Ferrocyanide ..	Q (0.010)	—	—	—	—
Sulphate ..	0.010	—	—	—	—
Sulphide ..	0.003	—	—	—	—
Thiocyanate ..	0.020	—	—	—	—

The U.S. specification for testing commences with a caution against inhaling fumes and against using pipettes to measure solutions. Test must be carried out in hood with strong draught. Assay is with decinormal solution of silver nitrate. Sulphide is tested colorimetrically with alkaline lead solution and thiocyanate by addition of ferric ammonium sulphate. B.D.H., White and Merck include potassium cyanide only.

Sodium Sulphate, Anhydrous					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.010	—	—	—	—
Loss on ignition ..	0.50	0.5	—	—	—
Neutrality ..	Q	—	—	—	—
Chloride (Cl) ..	0.003	Q	—	—	—
Nitrogen compounds (as N) ..	0.0005	Q	—	—	—
Arsenic (As) ..	0.0003	0.0002*	—	—	—
Calcium, magnesium, etc. ..	0.030	—	—	—	—
Heavy metals ..	Q (0.0005 Pb)	Q	—	—	—
Iron (Fe) ..	—	Q	—	—	—
Molecular weight ..	—	142.058	—	—	—

* For hydrated salt.

White and Merck include hydrated sodium sulphate only.

Sodium Thiosulphate					
	U.S.	B.D.H.	White	Merck 1922	Merck 1912
Insoluble matter ..	0.010	—	—	—	—
Sulphate and sulphate (as SO ₄) ..	0.020	Q	Q	Q	Q
Sulphide (S) ..	0.0001	Q	Q	Q	Q
Neutrality ..	Q	Q	—	—	—
Molecular weight ..	—	248.202	—	248.22	248.22
Assay ..	—	99.0	—	—	—

B.D.H., White and Merck test specially for calcium.

Deeds of Arrangement

Phillips, William G., chemist and druggist, late of 94 Richmond Road, London, N.1. Among the creditors are:—Kodak, Ltd., £74; Thomas Hodgkinson, Prestons & King, £83; W. Sutton & Co., Druggists' Sundries, London, Ltd., £101; Allen & Hanburys, Ltd., £22; The British Drug Houses, Ltd., £21; Castle Huskisson, Ltd., £27.

Bankruptcy Reports

Re Thomas Stevenson, trading as the Dawson Drug Co., 341 Chorley New Road, Horwich, drug-store proprietor.—The first meeting of creditors was held on January 19 in Manchester. The statement of affairs showed gross liabilities £1,166 12s. 8d., and there was a deficiency of £545 16s. 10d. The debtor attributed his failure to speculation in mill shares. It appeared that after being in business in Southport and Bolton, he purchased premises at his present address for £300 and stock for £300. He borrowed £600 from a relative with which to purchase this concern, his capital of £625 being invested in mill shares. The debtor stated that the business had provided him with sufficient profit to live on; he became aware of his position in 1926, and had contracted debts since then. The matter was left with the official receiver.

Pharmaceutical Society of Northern Ireland Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Northern Ireland was held on January 21 in the Society's Offices, Scottish Provident Buildings, Belfast, the President (Mr. Horatio Todd, J.P.) in the chair. There were also present: Messrs. A. C. McBride, J.P. (Vice-President), J. E. Connor, J.P., H. G. Pring, J.P., S. S. Badger, J.P., Fred Storey, H. Lancashire, J.P., J. F. Grimes, J.P., S. Suffern, W. E. Wilson, W. J. Rankin, Andrew Wilson, W. J. Hardy, Jas. Dundee, W. S. Taylor, Joseph Moffet, Dr. Acheson, Professor Small, Mr. D. E. Kirkpatrick (secretary), Mr. W. D. L. Greer (registrar), and Professor Wren.

It was unanimously agreed to send congratulations to the Prime Minister (Sir Jas. Craig) on his elevation to the peerage.

HOME OFFICE CO-OPERATION

The SECRETARY read a letter from the Registrar of the Society at the Home Office stating that the Minister of Home Affairs is willing that a memorandum should be furnished annually to the Council containing particulars regarding that part of the administration of the Pharmacy Act which is under the control of the Ministry.

CERTIFICATES

It was decided to issue certificates to pharmaceutical chemists on the register at a cost of 5s. to cover expenses.

Mr. DUNDEE asked would a man who discontinued membership have to send back the certificate?

The PRESIDENT said this was for licentiates of the old Society on the Northern Society's register and who would be entitled to the certificate.

REFERRED TO EDUCATION COMMITTEE

The SECRETARY read a letter from an apprentice whose apprenticeship began on June 11, 1925, two days after the passing of the Act. He omitted to send in a certificate and was not registered until that week, and he wished to know if his apprenticeship would date from June 11 or from date of registration.

The PRESIDENT said he could get an affidavit from his employer. The matter should, however, go to the Education Committee. This was agreed to.

Letters from Messrs. Cornett (Belfast), Hudson (Kilkeel) and Craig (Londonderry), raising various points in their individual cases, were referred to the Education Committee.

THE SPECIAL BOARD

Professor SMALL wrote on behalf of the Special Board of Examiners that having considered a letter from Mr. Honeyman referred to them by the Council, they were not prepared to discuss or explain why any particular question was set in the recent examinations, except officially with representatives of the Council, and if the Council considered such a step necessary. They were not prepared to accept the certificates of any outside body in lieu of their examinations, but would always take such certificates into account in considering the results of their examination of any candidate.

It was decided to send a copy of the letter to Mr. Honeyman.

RECOGNITION OF CLASSES

A letter was read from the Subcommittee for Technical Instruction, Enniskillen (Fermanagh County Education Authority), applying for recognition of classes at the Technical School for the training of pharmaceutical apprentices in the subjects of business methods and botany.

It was decided provisionally to recognise the school for Part I.

FACILITIES FOR COUNTRY STUDENTS

Mr. CONNOR said the question of insufficient facilities for country students, in his opinion, had not been fully discussed by the Council, and there were great difficulties in the way. There was to be a conference of technical school principals in Belfast, and he moved that the Secretary should communicate with the Secretary of that Conference.

Mr. BADGER seconded, observing that the country boys were still at a disadvantage, notwithstanding what was being done for them. The principal difficulty was about the teaching of botany.

Mr. TAYLOR said the technical schools would not provide material. It would have to come to it that a travelling teacher would be the solution.

Mr. CONNOR said there was also a difficulty of sending pupils home to outlying towns, say, from Newry, at 10 p.m. on winter nights.

Mr. STOREY: You will have difficulty, no matter what you do.

Mr. MCBRIDE thought they were getting on all right and that things were settling down. All the towns had been satisfactorily fixed up, except a few small remote places like Hilltown, Newtownhamilton, Rathfriland and Crossmaglen. There were buses now to most districts, and if the masters let the boys off there would not be much difficulty. The boys of to-day had facilities that were never available in his young days. Travelling teachers might solve the trouble for the remote districts. The technical conference had not the power to do anything. They had not the money, which would have to come from the higher powers. The boys themselves would have to make some effort.

Mr. BADGER said where there were only four or five boys the technical schools would not start a class without a guarantee.

Mr. TAYLOR asked would the Society make good any deficiency?

The PRESIDENT replied they would consider that. The Council would do all it could, but it could not do everything. It was up to the employers to help the boys. They would summon all the country members to the next Education Committee, whether they were on the Committee or not.

Mr. CONNOR's resolution was passed.

Professor SMALL said it was up to the employers to let the boys off. In one town the classes were being held up because the employers would not let the boys off in time to attend.

The SECRETARY said that there were 17 students in Portadown and 11 in Newry taking physics and chemistry.

The PRESIDENT reported that he had been placed on the Executive Committee of the British Pharmaceutical Conference and notified to attend a meeting on January 26. He considered it a compliment to the Society.

On the motion of Mr. Hardy, seconded by Mr. Connor, the President was authorised to represent the Society on the Committee.

EDUCATION COMMITTEE

Mr. DUNDEE moved and Mr. MCBRIDE seconded the adoption of the report of the Education Committee.

The SECRETARY reported that he had had replies from all the technical institutes on the subject of facilities for teaching, and from several secondary schools.

The PRESIDENT asked Professor Wren if technical teachers generally were sympathetic to pharmaceutical students.

Professor WREN said he did not think they fully understood the position. In towns where a pharmaceutical chemist had gone to the Principal and teachers and explained matters, things were going on all right.

LIMITATION OF APPRENTICES

The PRESIDENT said that some of the country members thought there was going to be difficulty in the matter of getting apprentices. They discussed the matter at the Education Committee, and it was suggested there should be limitation, so that every one would get a fair chance. In the technical school in Belfast, Professor Wren thought he was not being supported by the employers as he ought. Employers would not let the boys attend the day classes, and kept them too late for the night classes. That was unfair.

Mr. PRING asked was the crux of the difficulty not having indentures. If there was a uniform indenture, clauses could be inserted providing for letting off the boys as was considered desirable.

Mr. RANKIN said there was no report from the Committee.

The PRESIDENT said it was only talked over informally. In his opinion, if there was limitation of apprentices they would be better distributed over the province.

He wished the opinion of the Council on the subject before they talked of indentures.

Mr. STOREY said the only apprentices they had control over were the indentured apprentices. That was his reading of the Act.

The PRESIDENT said he understood that perfectly. They had taken legal opinion on it. If the Council decided on limitation, they could then have an indenture form drawn up.

Mr. BADGER said it was unfortunately a fact that some chemists exploited their boys and did not teach them the business at all.

Mr. PRING said he would like a standard indenture for the whole profession. It would be advisable to have the number of apprentices limited.

Mr. A. WILSON said he was "fed up" with regulations, laws and restrictions, both in connection with the trade and other things. He was never indentured, and never had indentured apprentices, nor would he have them unless he was compelled by the Government.

Mr. CONNOR said legislation in connection with apprentices was going to make business even more difficult. He did not see why they could not run their business without all these regulations. Limitation of apprentices had worked out very disastrously in various trades. This was a matter in which they should not interfere, and he objected very strongly to any suggestion of the kind.

Mr. LANCASHIRE: Is it not stated in the Act that apprentices were to be indentured?

Mr. HARDY: No.

The PRESIDENT said that in the Home Office they thought apprentices should be limited and indentured.

The REGISTRAR said he did not know the practical difficulties before them. Apprentices were young, and would probably be done down by the employer if he was unscrupulous. Apprentices could not be limited without indenturing them.

Mr. BADGER said that as a country chemist he never had difficulty getting apprentices.

Mr. STOREY said when the clause was being drawn up it was actually suggested at the Executive Committee of the Pharmacists that not only should the apprentices be limited, but that only certain people should have the right to train apprentices.

Professor WREN said the present day course was solely for one day in the week, but it was only being supported to the extent of six or seven apprentices, some of whom came from outside the city. He would not carry on the class indefinitely without students. Under the new regulations at the evening classes the lads were doing splendidly. They were coming three nights a week, but they could not attend classes three nights a week till ten p.m., and the other three work till 9.35 or 10 p.m. Frankly, a considerable number of employers were not giving the facilities necessary, and the boys were not getting a chance. It seemed almost as if some pressure would have to be brought to bear on the employers.

The PRESIDENT said they recognised the trouble Professor Wren had taken, and it was a pity he was not being supported.

Mr. DUNDEE asked was it possible some of the boys had not approached the employers.

The PRESIDENT: That might be.

Mr. DUNDEE said if they limited apprentices, would they have to guarantee places for those who passed the examination?

Mr. RANKIN asked who would report on the number of apprentices?

The REGISTRAR: The Inspector would cover that.

Mr. TAYLOR said Belfast pharmacists might have to close their businesses at an earlier hour.

The PRESIDENT: We will not discuss that. A lot of things would be very nice if we could all agree on them.

Professor WREN said in reply to Dr. Acheson there was no appreciable difference in the cost of the day and evening classes.

Mr. CONNOR said they were inclined to look too much to the professional side and forget that they had to make their daily bread. Employers might be driven to employ unqualified assistants, and he suggested that the whole matter might be left over. Many present-day difficulties were due to governments interfering with business they did not understand.

Professor SMALL said that in Great Britain 20,000 pharmacists had a common indenture.

Mr. STOREY: But they are not restricted in the number of apprentices.

Mr. PRING advocated the formulation of a scheme suggesting hours at which boys could get off to classes.

Mr. STOREY: Professor Wren's charge is very serious.

Professor WREN: I have gone into the matter very carefully, and it is true to the best of my knowledge. Many of the boys are working under great disabilities. I do not say it is general, but it happens in many cases. I will put it to the boys now to put it to the employers, but it will not be the first time.

Mr. SUFFERN suggested sending a circular to all employers. Many employers did not realise the necessity for it.

The PRESIDENT said that in another case they sent out circulars and got only two replies.

Mr. HARDY was opposed to indentures. He never had an indentured apprentice.

The matter was eventually referred to the Education Committee.

Nineteen new members of the Society were elected.

Canadian Notes

Mr. L. L. COULTER, formerly associated with the drug stores of J. A. Musgrove and Weldon Graham, Ltd., has purchased the business of D. S. Johnston, Bank and Sunny-side Avenue, Ottawa, Ontario, which is located in the substantial residential district of Ottawa South.

Mr. P. J. NOLAN, a well-known druggist, of Ottawa, Ontario, was second in the Ottawa mayoralty elections for 1927, the voting taking place early in December. Mr. Nolan has served as an alderman of the local municipal government. Alderman William R. Low, druggist, was re-elected alderman of Central Ward for the fourth year. Mr. A. F. Astley, another Ottawa druggist, was re-elected a public school trustee.

Mr. HARRY SKINNER, veteran retail chemist, of Ottawa, Ontario, who recently made a sensational capture of an armed bandit in an attempted hold-up of his shop, has been officially recognised by the Ottawa Police Department for his bravery. Mr. Skinner has been presented with the revolver with which the bandit, Cassidy, wounded him, the revolver being silver-plated and suitably engraved with a record of the happening. The presentation was made by the Ottawa chief of police.

BIG OTTAWA FIRE.—The L. K. Liggett Company's drug store on Sparks Street, Ottawa, was destroyed by fire of unknown origin, the flames being discovered early on the morning of December 24. It has been found necessary to close down this establishment temporarily. Incidentally the building in which this Liggett branch was located has been expropriated, along with other structures, by the Dominion Government, for the purpose of establishing a Federal square in the centre of the city as a memorial to Colonel By, the English army officer who founded Bytown, the present Canadian capital, in 1826.

Mr. L. V. O'CONNOR, a lawyer of Lindsay, Ontario, has been appointed as a Royal Commission by Hon. Peter Heenan, Canadian Minister of Labour, to investigate the charge against the Proprietary Articles Trade Association of Canada, that it is a combine in restraint of trade. This ruling was made some weeks ago by Mr. F. A. McGregor, Investigator under the Combines Investigation Act, Ottawa. The association was given the opportunity to make formal reply to all complaints, and now the Minister of Labour has appointed the commission. The report of the commissioner is expected to be ready before the reopening of the 16th Session of the Canadian Parliament at Ottawa on February 8, 1927.

TOOTH-PASTES AND BRUSHES DISPARAGED.—"Most tooth-pastes on the market are acid in reaction, and do the teeth more harm than good," declared the assistant school medical officer for Bradford, in a lecture delivered on January 19. He advised that because of this, and because the ordinary tooth-brush is difficult to keep strictly clean in household use, it would be better to clean the teeth with soap and a flannel.

Personalities

MR. L. CAMERON, Ph.C., Seaford, has been elected Vice-President of the Seaford Chamber of Commerce.

MR. W. B. TRICK, J.P., Oakmead, York Road, New Barnet, senior director of Lewis & Burrows, Ltd., chemists, London, E.C., and branches, is suffering from influenza.

MR. JAMES JACKSON, who has been dispenser to the Gainsborough Urban District Council for forty-two years, has retired, and Miss Clara M. Fox, chemist and druggist, has been appointed as his successor.

Wills

MR. JOHN KAY HORNE, chemist and druggist, Oakleigh, Tarleton, Preston, who died on October 31, left estate of the gross value of £2,014 2s. 3d., with net personalty £273 14s. 5d. Probate has been granted to his widow, Mrs. Margaret Ellen Illingworth Horne, the sole executrix.

MR. JOHN WILSON, J.P., Braemar, 158 Main Road, Hare Park, Romford, who prior to retiring from business was manager of Law's Chemical Works, Barking, and who died intestate and a widower on December 14, left estate of the gross value of £10,419 7s. 7d., with net personalty £10,360 12s. 7d. Letters of administration of his property have been granted to his daughter, Miss E. B. Wilson, and his son, Mr. J. Wilson, Harrow.

MR. WILLIAM BAXTER, chemist and druggist, 160 High Street, Southampton, who died on November 25, left estate of the gross value of £17,505 9s., with net personalty £12,386 11s. 8d. Probate has been granted to his widow, Mrs. Kate Baxter, Cyril H. M. Baxter, chemist, Bourne, and Percy Mayor Randall, Castle Lane, Southampton, solicitor. The testator left his household effects and £750 to his wife, £500 each to his sisters Louisa and Edith, and the residue of the property in trust for his wife for life and then in trust for his sisters Louisa and Edith during their lives, with remainder to his nephews, Cyril H. Mills Baxter and Herbert Crocker Lasham, of Romford.

Births

Notices for insertion in this column must be properly authenticated.

WESTON.—At a Wallasey nursing home, on January 21, Grace Weston, M.P.S. (*née* Kesterton), wife of A. Eyton Weston, M.P.S., "Dovedale," Stanley Villas, Runcorn, of a son.

Deaths

ARNOLD.—At Landaras, Hatch End, on January 21, Ada, the beloved wife of Mr. H. R. Arnold (Burgoyne, Burbidges & Co., Ltd., manufacturing chemists, East Ham, London, E.6). The interment took place at Harrow Weald on January 24, after a service at St. Anselm's Church, Hatch End.

CARR.—At 11 Endcliffe Vale Road, Sheffield, on January 23, the wife of Mr. Percy Carr, chemist and druggist.

DUKE.—At Chesham Bois, on January 17, the wife of Mr. A. C. Duke, chemist and druggist, 136 High Road, Willesden Green, London, N.W.10.

FIELDING.—Recently, the father of Mr. P. J. Fielding, L.P.S.I., 66 Patrick Street, Cork.

FISHER.—At Liverpool, on January 11, Mr. John Little Fisher, chemist and druggist, aged sixty-seven.

FRYATT.—Recently, Mr. Henry Fryatt, for sixty-two years in the service of C. R. Harker, Stagg & Morgan, Ltd., manufacturing chemists, Emmott Street, Mile End, London, E.1, aged seventy-six.

FORSYTH.—At 5 Dalhousie Terrace, Barnhill, Broughty Ferry, on January 24, Mr. Alexander McLaren Forsyth, chemist and druggist, younger son of Mr. John Forsyth, chemist and druggist, Benvrakay, Barnhill, aged thirty-three. Mr. Forsyth was trained by his father, who was at that time in business at the Pillars, High Street, Dundee; he commenced on his own account shortly after qualifying in 1922. He leaves a widow.

GREGORY.—At his residence, Westholme, Fernbank Drive, Baildon, on January 21, Mr. Herbert William Gregory, chemist and druggist, a director of F. M. Rimmington & Son, Ltd., chemists, 9 and 11 Bridge Street, and 234 Manningham Lane, Bradford. Mr. Gregory, who was a native of Lincoln, qualified in 1897, and was associated with Rimmington & Son, Ltd., for over thirty years. He had been in poor health for the past twelve months.

GURNELL.—At Croydon, on January 15, Mr. William Gurnell, chemist and druggist, for many years a partner in the firm of Gibbs & Gurnell, chemists, Union Street, Ryde, aged eighty-six.

GUY.—At Boughton House, Chester, on January 15, Mr. John Guy, retired chemist and druggist, aged eighty-nine. Mr. Guy established himself in business on the outskirts of the city in 1860, and carried on his pharmacy for thirty-two years. He served on the Chester Board of Guardians, and was at one time a warden of St. Paul's Church.

HALL.—On January 25, Mr. James Hall, Northern Counties representative of Barnetts Perfumery, Ltd., 126-128 Bristol Street, Birmingham, for thirty years.

HODGETTS.—At 37 City Road, Edgbaston, Birmingham, on January 22, suddenly, Mr. Nathaniel Hodgetts, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., chemist and druggist, father of Mr. H. N. Hodgetts, M.P.S., 79 Abbey Road, London, N.W.8, aged sixty-four. Mr. Hodgetts served his apprenticeship to Mr. Corfield, homœopathic chemist, Broad Street, Birmingham, and qualified as a chemist and druggist in 1889. He entered the medical profession ten years later, and practised with great success at Starchley and West Bromwich, retiring two years ago. A widow and two sons survive him.

MCCUTCHEON.—At Kingussie, on January 21, Mr. Alexander McCutcheon, chemist and druggist. Mr. McCutcheon was born at Cawdor in 1875, and passed the Qualifying examination in 1898. He disposed of his interests in Edinburgh and commenced business at Kingussie seventeen years ago. Although his health did not permit of his taking a very active part in public affairs, Mr. McCutcheon was well known and much esteemed in the district; he was a member of Lodge Spey of Freemasons, and during the recent war took charge of a troop of boy scouts. He is survived by a widow and a son.

MARKS.—At 12 Froggnal Lane, Hampstead, London, N.W., on January 24, after a short illness, Mr. Arthur George Marks, senior partner of C. M. & C. Woodhouse Carey & Browne, produce brokers, Commercial Sale Rooms, Mincing Lane, E.C., aged fifty-seven.

MARTIN.—At the Nursing Home, Salisbury, on January 21, of pneumonia, Marie Muir, wife of Mr. John Muir Martin, chemist and druggist, aged forty-seven.

STEVENS.—On January 22, Mr. George Stevens, chemist and druggist, 6 Bebbington Road, Higher Trammere, Birkenhead, aged seventy-one.

WEBSTER.—At his residence in Shakespeare Road, Hanwell, on January 20, Mr. John Webster, F.I.C., F.C.S., senior analyst to the Home Office, aged forty-nine. Mr. Webster joined the Home Office staff when the late Sir Thomas Stevenson was senior analyst; in 1919 he succeeded Sir William Willcox in that position. He was engaged in the trials of Seddon, Armstrong and Vacquier, and in other cases of toxicological interest reported in THE CHEMIST AND DRUGGIST. During the past twenty years he had been on the staff of the pathological chemistry department of St. Mary's Hospital, Paddington, W.; he also published several monographs on arsenical poisoning, salvarsan, and other subjects.

Trade Notes

SETSUG SANITARY BELTS for ladies are made in England by A. Burnet & Co., Ltd., 48 Golden Lane, London, E.C.1.

AMOVON FOOT PASTE.—Wynter Bros. & Co., Ltd., Bradford, advertise in this number their Amovon Foot Paste, which retails at 7½d. per box.

LEIPZIG SPRING FAIR will be held this year from March 6 to 13. Particulars are obtainable from the London offices, 1 Gower Street, W.C.1.

NORMACOL, an intestinal evacuant, is the subject of the advertisement of H. R. Napp, Ltd., 3 and 4 Clement's Inn, London, W.C.2, in the red and black art paper supplement of this issue.

OZOLIN TOILET PREPARATIONS.—A special offer relating to Ozolin dental cream and shampoo powder is made in the advertisement of the Ozolin Perfumery Co., 60 & 62 Rochford Road, Southend-on-Sea.

We have received from the Embossed Showcard Co., 145 and 151 High Holborn, London, W.C.1, a wall calendar (12 in. by 9½ in.) for the current year; the central picture (a rural scene) is cleverly printed in colours.

CLOSED FOR STOCKTAKING.—May, Roberts & Co., Ltd., 7-13 Clerkenwell Road, London, E.C.1, inform us that their premises will be closed for stocktaking on January 29, and that statements will be made up to and including January 28.

METATHEN is a powerful germicide made by the Abbott Laboratories. The distributors in this country are E. H. Spicer & Co., Ltd., 72 Wigmore Street, London, W.1, who give details regarding the product in an announcement in this issue.

NULOMOLINE, which is pure invert sugar, is recommended as an alternative to the use of glycerin in unofficial syrups. The distributors in the United Kingdom for the Nulomoline Co. are Fredk. Boehm, Ltd., 17 Jewry Street, London, E.C.3.

HOT-WATER BAGS.—Chas. Macintosh & Co., Ltd., give several talking points for selling the Macintosh anti-scald hot-water bottle. The stopper is fitted with a separate vent for the escape of the steam, so that the bag is easily filled with hot water without the risk of scalding the hands. This hot-water bag is being advertised to the public, so that chemists may expect a demand for it.

ESSENTIAL OILS CHARTS.—R. C. Treatt & Co., Ltd., essential oil merchants, 11 Hart Street, Mark Lane, London, E.C., have issued their annual charts based on the London spot prices of Bourbon geranium, Cochin lemongrass, Ceylon and Java citronella, and Japanese peppermint oils during the six years 1920-1926. The charts measure 18 in. by 12 in., and are mounted on stiff cardboard and varnished.

WRIGHT'S COAL TAR SHAMPOO.—Wright, Layman & Umney, Ltd., 40 to 50 Southwark Street, London, S.E.1, are beginning a special advertising campaign and competition in connection with Wright's coal tar shampoo powders. The powders are now put up in one size only, viz., in one dozen boxes of seven, the boxes of thirty-six being discontinued. The demand by the public should be anticipated by chemists carrying sufficient stocks.

"B.D.H." COD-LIVER OIL.—As an instance of the care taken to follow the developments of biochemical research, the cod-liver oil sent out by the British Drug Houses, Ltd., may be quoted. This product, labelled "Pharmaceutical Quality," bears a notice regarding the vitamin content of the oil which embodies the following statement:—

The cod-liver oil used herein has been selected from others by the use of a physiological test, by which the actual growth-promoting effect on animals is determined.

There is also another note referring to the deleterious effect of bright light on cod-liver oil, and to the fact that the amber-coloured glass bottles used for the oil is for the purpose of protecting the oil from the influence of light.

COX'S CATALOGUE.—Arthur H. Cox & Co., Ltd., manufacturing chemists, Brighton, have sent us one of their new illustrated catalogues of packed specialities which is being sent out to their customers. Chemists who have not received a copy can obtain one on making a postcard request.

"CALIFORNIAN POPPY."—Owing to the increase in the cost of production, the retail and wholesale prices of Californian Poppy perfume are increased from January 28. The changes in price are enumerated in the advertisement in this issue of Atkinsons, 24 Old Bond Street, London, W.

"BRITISH JOURNAL PHOTOGRAPHIC ALMANAC."—The issue of this annual for 1927 is noticeable for the photographic supplements, in which are given excellent examples of modern photographic work. The very valuable Epitome of Progress, which has been a feature of the work for many years, is continued, and should be read by every photographic chemist who wishes to keep abreast of advances in photography. The main feature, however, for chemists is an important article on the developing and printing of amateurs' films. This occupies ten pages and deals with the business as well as the practical side of the subject. Another article is on Chloro-brom papers, and the collection of formulas for carrying out the numerous photographic processes is as extensive as ever. This section is constantly referred to in the pharmacy. The Almanac, containing 820 pages, sells at 2s.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1926, p. 309.

(From "The Trade-marks Journal," January 5, 1927.)

"THATCH-IT"; for a preparation for the hair and scalp (48). By H. Whitehead, 55 St. Dunstan's Avenue, Acton, W.3. 473,867.

"RESTORIA"; for toilet preparations (48). By P. J. Williams, 27 Finsbury Street, London, E.C.2. 474,386.

"AMMONOX"; for perfumery, etc. (48). By C. B. Parsons, 21 Kilwardby Street, Ashby-de-la-Zouch. 475,058.

"NONNAC"; for toilet cream (48). By A. H. Cannon, "Cleveland," Cheam Common Road, Worcester Park, Surrey. 475,500.

(From "The Trade-marks Journal," January 12, 1927.)

"GALOXIDE"; for all goods (1). By Goodlass Wall & Co., Ltd., 42 Seel Street, Liverpool. 474,883.

"LITHOTEX"; for chemicals (1). By Pictorial Machinery, Ltd., 7 Farringdon Road, London, E.C.1. 475,155. (Associated.)

"AVOS"; for chemicals (2). By A. H. Brain, 63 Old Meeting Street, West Bromwich. 471,474.

"BO-NO"; for insect destroyers, disinfectants, etc. (2). By Bono, Inc., 115 Broadway, New York, U.S.A. 474,236. (Associated.)

"SANOBRITE"; for chemicals (2). By F. W. Hampshire & Co., Ltd., Silk Mill Lane, Derby. 475,446.

"FERMOX"; for ointments, etc. (3). By Fermox Ointments Co., Lutterworth Road, Claybrook, Rugby. 471,245.

"DONOVENE"; for an ointment (3). By A. Donovan, 306 Romford Road, Forest Gate, London, E.7. 473,204.

"NONN, NATURE'S OWN NERVE NOURISHMENT" ("Nature's Own Nerve Nourishment" disclaimed); for a preparation for neurasthenia (3). By Nonn, Ltd., 45 Gordon Square, London, W.C.1. 474,472.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

D/241. Durrant's suspensory bandages	H/201. Seoxyl (for sea-sickness)
T/261. Ozian Urethral Syringe	B/261. Thloxin (compound lead powder, non-conducting)
H/251. Pioneer hot-water bottles	A/42. Wheat germ oil
S/251. Pitsno Salts	

Observations and Reflections

By Xrayser III.

York Chemists

are entitled to our full sympathy in their demand for increased remuneration, but the time is not ripe for pressing such a claim as that with which they conclude their well-stated case. Like you, I find difficulty in following the line of reasoning which has led our friends in the ancient northern metropolis to fix upon the figure of eightpence for the standard dispensing fee, and I would suggest that those who feel disposed to follow the York lead should read and meditate carefully upon the article in which you discussed the matter last week (p. 107). In another place (p. 101), I note that Sheffield chemists have decided to support the demand for eightpence, but this was possibly only on the principle of asking for more than you expect to get, and in that case I would like to know why eightpence rather than ninepence, or even a shilling. An excellent case can be made out for a sixpenny fee, and the same may be said of an attempt to secure the existing fivepenny fee clear of all deductions which tend to reduce the average to something between fourpence and fourpence halfpenny. As I pointed out a fortnight ago, we need to be exceedingly careful that any increase in the standard dispensing fee shall not be accompanied by apparently harmless modifications, the effect of which may be to take away more with one hand than has been given with the other.

Times Are Changed

indeed when members of the Pharmaceutical Society's Council are supported on the platform in their own house by the President of the Proprietary Articles Trade Association in his official capacity. But it is to be remembered what an enormously increased proportion of the chemist's business now consists of trade in proprietary articles. It would probably be difficult to find a chemist nowadays who has not one or more of his own, while the greater portion of his turnover is the result of sales of those marketed by others. It is interesting to note how wholeheartedly the Council of the P.A.T.A. is setting to work to help the pharmaceutical Parliamentary Fund. Let us hope, however, that the chemists and druggists of the country, who are the people most directly concerned in the appeal that is being made for funds, will not allow themselves to depend unduly upon manufacturers and wholesalers for the provision of the necessary funds. Self-help will prove more effective in attaining the results desired than will reliance upon friends who are willing to help. For that reason, as well as the urgency of our need, I hope to hear less of the disposition displayed by many in our ranks to subscribe small sums. No chemist in business ought to put his or her name down for less than two guineas, and everyone who is in a reasonably prosperous position should think twice before subscribing less than five. In this way, and this way only, can the required funds be obtained without risk of our not having a preponderating influence in what is primarily a purely pharmaceutical matter.

Influenza

is playing its part in helping chemists to secure more business, not only in the normal way, but also through the medium of advertisement. Curiously enough, the advertising is not all in respect of proprietary articles, as much of it tends to increase the demand for ordinary drugs and galenicals. One remarkable advertisement in a leading daily paper advised everyone attacked by influenza to take salicin, which was pushed as a British product without any advertiser's name being mentioned. I wonder if many chemists have noticed any marked increase in the demand for salicin since this advertisement appeared. Then the use of cinnamon as a preventive was implied in a news paragraph concerning the immunity from infection enjoyed by workers in the cinnamon warehouses of London. But the finest puff of all was that given to glycerin of thymol by the editor of the "National Review," not in his own paper, but in one of the most widely-read popular weeklies. Mr. Maxse insists upon regular disinfection of the nose

and throat as the only certain preventive of influenza, and strongly recommends the daily use "as a gargle and snuffle" of glycerin of thymol. There could be no finer advertisement of a non-proprietary remedy, and I shall be surprised if the demand for the compound has not since gone up by leaps and bounds.

That "Debonnaire" Prince,

"of many virtues and many greate imperfections," King Charles II, is the subject of a recently published book written by one of our best-known poets. In it we are told that he died from "some form of the stone," whatever that may mean; but it is now generally admitted that the cause of his death was Bright's disease. The description of the last hours of the stricken king, as given by John Evelyn, is so vivid that all who read it must feel impressed by the aimless prescriptions and operations of the attendant physicians. The cupping and letting of blood; the administration of the vomits and purges and the "famous Jesuit's powder"; and the conflict of opinion among the doctors—these arouse in one an intense pity for the patient, as well as for the commonality of those days, who suffered so much at the hands of the practitioners of medicine. Evelyn's account does not tell the half of the facts. Some little time ago I had the opportunity of reading the official report, drawn up in Latin, by the physicians. The items of medicine given in the four days from February 2 to February 6 are thirty-nine in number. The treatment after the blood-letting began with emetics; first an ounce and a half of the infusum crocus metallorum, succeeded by a drachm of white vitriol. Almost immediately there was given a purgative—*pilula ex duobus*—a drachm dissolved in peony water; then followed two mixed enemata, of which the first contained *hiera pica* and *syrupus spin. cerv.*, and the second was a repetition with an increase of the syrup, and with some emetic wine. The above purgative was administered again, and the patient's head was covered with a blister. Later on extemporaneous *hiera pica* mixture was ordered, together with some powdered hellebore to cause sneezing. And so the treatment continued. In the latter stages, however, medicines of a less drastic character were employed.

Laxatives

took the place of the *hiera pica*; manna was ordered in several of the prescriptions. For application to the head a plaster containing equal parts of the *emplastrum cephalica cum euphorbio* and *pix Burgundica* was used. The doctors found it necessary to give a gargle made with *cortex ulmi*, *syrupus althææ* and *aqua hordei*. The gravity of the King's condition must have begun to alarm his attendants, for they had recourse to cordial and restorative medicines. The first of these was a julep, of which the patient was to take four, five or six spoonfuls between the attacks of faintness; its most important ingredient was two drachms of prepared pearls. At the same time a senna and manna laxative was administered, and a stimulant consisting of the *spritus cranii humani* exhibited in a dose of the cordial. On the same day in two different prescriptions the *cortex Peruvianus*, to which Evelyn refers. On the following day, the day of the King's decease, they were compelled to employ stronger cardiac cordials, so the following eight items were used, during the day and evening, in this order—of the *antidotus Raleighiana major*, half a drachm; of the Goa stone, one scruple; of the *cortex Peruvians*, a drachm and a half in wine; *spiritus salis ammoniaci* taken from time to time in the cordial julep; at 8 o'clock in the evening twenty drops of the *spiritus salis ammoniaci succinatus*, two scruples of the Oriental bezoar stone, a further twenty drops of the spirit. *salis ammon. succin.*, and lastly this dose: *Antidoti Raleighianæ 3j., julap. perlati cochlear. 5, spir. sal. ammoniac. succinat. gtt. xx. M. Statim propinetur.* When the king went with Evelyn to visit "Mons. Febure, his chymist, to see his accurate preparation for the composing Sir Walter Raleigh's rare cordial," he could little imagine that the celebrated medicament would be associated for all time with his last moments on earth.



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Editorial Articles

The B.P. and Bland's Pill

THE British public and the British Pharmacopœia are equally concerned in the composition of Bland's pill, but whereas the former are wont to trust the "chemist" to supply the right article, the public analyst accepts the supreme authority of the Pharmacopœia, and hints that it would be safer from a legal standpoint to supply a B.P. article, even when this perpetuates a chemical error. The sanctity of pharmacopœial standards is thus to override the traditional policy of making medicines *secundum artem* to meet the intention of the prescriber, a principle which was once embodied in the British Pharmacopœia itself, as is evident in the following paragraph from the Preface to the British Pharmacopœia, 1867 (repeated in the B.P. 1885) :—

There are some medicines for the preparation of which it is essential that precise directions be given, namely, such as can only be obtained by some peculiar process, and with the exact composition of which we are but imperfectly

acquainted; processes are also, in most instances, appended to the descriptions of chemical compounds of known and definite composition, which admit of exact definition in other ways. In many of the latter cases, however, it is left optional with the manufacturer to use the processes given, or others by which products may be obtained that will accord with the descriptions and tests given for their identification.

The point at issue is that *Pilula Ferri*, B.P. 1914, what is ordinarily regarded as the official representative of Blaud's pill, is required to contain "about 22.5 per cent. of ferrous carbonate," whereas ingredients of minimum purity result in only 20 per cent. being present (with alkali carbonate in excess), owing to oversight in not allowing for the reduced standard of iron content. In order to appreciate fully the niceties of the situation, it is necessary to go into the evolution of Blaud's pill. Blaud's pills were invented by Dr. P. B. Blaud (1774-1858), the physician of the hospital at Beaucaire, Gard, France, and like the earlier pills of Dr. Moses Griffiths, of Colchester, contained ferrous carbonate as the active ingredient either formed in preparation or during dissolution of the pill. The latter became official in the *Pharmacopœia Londonsensis*, 1809, and the former was adopted by the French Codex of 1866. A Dr. Cottureau gave in the "*Bulletin Générale de Therapeutique*" for September 1831 a formula for a pill for chlorosis, which was being made by a pharmacist named Guillard, and which a provincial medical man had communicated to the Académie Royale de Médecine, but Dr. Blaud's name was not mentioned. The latter wrote stating that this formula was not identical with that he invented, which is given in Wootton's "*Chronicles of Pharmacy*" as:—

Gummi Arabici, 5 grammes; *solve calore baln. vapor in aquæ distillatæ*, 50.5; *syropi simplicis*, 15 grammes; *ferri sulfuric. sicci*, 30; *quibus caute mixtis adde kali carbonici*, 30; *et inter agitatione ope spatulæ ferreæ in balneo vaporis evaporando ad massam pilularum redige; e qua forma pilulas*, 120; *obducantur argento foliato*.

The original formula is stated to be still employed by a nephew of the inventor, and the pills made in France are obtainable as a proprietary article. Various formulas for Blaud's pills were adopted in England, those of Ince and Martindale being well known. Ultimately that devised by Mr. Thomas Maben, Ph.C., was published in the British Pharmaceutical Conference Formulary (1887) and subsequently adopted in the additions (1890) to the British Pharmacopœia, 1885. Here it is definitely stated that "This Iron Pill is commonly known as 'Blaud's Pill,'" "Each pill contains about one grain of carbonate of iron," the weight of the pill being specified as five grains. In the 1898 B.P. *ferri sulph. exsic.* replaces ferrous sulphate and exsiccated sodium carbonate is substituted for potassium carbonate, while the statement reads, "if divided into five-grain pills, each pill will contain about 1 grain of ferrous carbonate." The B.P. of 1914 adopted Lucas and Steven's formula (1903), the noteworthy modification being the replacement of syrup and glycerin by glucose, the latter being very effective in preventing the green pill mass becoming brown by oxidation. The inclusion of metric doses was probably responsible for specification of ferrous carbonate content as "about 22.5 per cent." The use of Blaud's pill as a synonym for *pil. ferri* disappeared from the 1898 and 1914 British Pharmacopœias, when dried sodium carbonate replaced potassium carbonate. The only conclusion that can be drawn is that Blaud's pill is best represented by an iron pill containing one grain of ferrous carbonate in each five-grain pill, this chemical being produced by double decomposition. Strict tradition requires the alkali to be potassium carbonate, but custom has led to the sodium carbonate of the earlier Griffiths' pill becoming a standard ingredient in modern formulas for Blaud's pill. Dried sodium carbonate is now recognised as an active

ingredient of Blaud's pill, with glucose as the most suitable excipient. *Pilula ferri*, B.P., prepared on a manufacturing scale from pharmacopœial quantities, produces a wet unworkable mass. Makers are in the habit of using various means to accelerate the completion of the chemical reaction producing ferrous carbonate, while at the same time preventing oxidation. Frequently the plastic mass is squeezed to remove liquor, as the contained salts are liable to crystallise and spoil the appearance of the pill mass or give trouble before or after coating. The correct procedure is to assay both the essential ingredients and utilise these in correct proportions to produce a pill mass on which the ferrous carbonate content is checked by assay. Obviously the removal of non-active and trouble-making ingredients is merely an improvement complying with both pharmaceutical and pharmacopœial tradition. In our opinion the pill manufacturer who produces a Blaud's pill, or one grain of ferrous carbonate in five grains of pill mass containing 22.5 per cent. of ferrous carbonate, by balancing his chemical ingredients (by assay) or modifying the working of his pill mass, by expression of surplus liquor, to give this result is complying with the public demand, irrespective of whether such processes removes salts or alkali which might on the (incorrect) B.P. formulation be expected to be left in the mass. The abstract above from the Preface of the 1867 B.P. supplies a definite precedent for such procedure, and the B.P. 1914 text indicates that a content of 22.5 per cent. of ferrous carbonate is expected. The stumbling block to accuracy is the variable content of ferrous sulphate in *ferri sulph. exsic.*, and now that attention has been called to this point there is little doubt that assay and utilisation of equivalent amounts found necessary by actual process of manufacture will solve the problem of a pseudo-official Blaud pill. At present the legal situation is that:—

(1) Blaud's pill is a proprietary preparation containing ferrous carbonate and potassium sulphate, the sole right to which is apparently no longer claimed in this country.

(2) Blaud's pill, of a composition representative of the original formula, was official in the 1890 addition to the British Pharmacopœia.

(3) *Pilula ferri*, B.P. 1898 and 1914, was modified to an extent that pharmacopœial compilers did not feel justified in keeping the name Blaud's pill as a synonym, though custom still sanctions this.

A consequence is that there is no official Blaud's pill, and any maker supplying a five-grain pill containing 1 grain of ferrous carbonate is entitled to label this according to its mode of manufacture. Thus *pil. ferri*, B.P. (Blaud's pill) would obviously have to comply with Mr. Liverseege's standards, but "Iron pill (Blaud), contains 1 grain of ferrous carbonate in each five-grain pill," could be made by any suitable process, so long as this amount of ferrous carbonate is present and an official formula or synonym for Blaud's pill is not included in the Pharmacopœia. It is worthy of note that Blaud himself directed his pills to be silvered, which is now very rare compared with coating with either sugar, pearl or gelatin.

Turpentine Market Unsettled

THE recent financial trouble in the turpentine market, as will have been seen from our Trade Report, has led to considerable unsettlement and disorganisation in that product for the past fortnight. Official dealings were suspended over a certain period pending the adjustment of the large commitments which came to grief on the bull side and resulted in an important failure. A large amount of turpentine was thrown on the market in one direction

or another, so that in the entire absence of confidence more or less forced liquidation became the more difficult. An all-round official quotation of 55s. per cwt. was first fixed for the week ending January 8, and this quotation was eventually reduced to 52s. Towards the middle of the month the weakness became rather acute on free offers from stock down to 51s. 3d., while it was even reported that sales had been effected privately for early delivery down to as low as 50s. These events were reflected in the markets at Savannah and Jacksonville, where business was practically held up pending the stabilisation of the London market. There was, however, a sudden rally of about 1s. 6d. per cwt. towards the close of last week at 52s. 6d. to 54s. 3d., so that a notable premium has been established on contracts covering the second half of the year. These figures indicate a total recovery of 2s. 6d. per cwt. from the low level touched as the result of the serious financial difficulties which took place. The Savannah quotation, which at the end of December stood at about 77½ cents per gallon, collapsed to 72 cents, but encouraged by some recovery in London the southern markets have already rallied to 75½ per cent., while offerings there have been very light and readily absorbed. As was to be expected, consumers everywhere have been very reluctant to cover their needs pending further developments in the London market, yet the fact has not escaped attention that outgoings have improved considerably lately. Additional re-sales on speculative account, as time goes on, are to be expected, but there is reason to believe that equilibrium is being gradually restored, judging from the latest aspect of the market, while there is no doubt that at the same time "short" commitments of a certain importance have also to be squared up. Calculations having been badly upset by unforeseen events, chiefly in regard to our market, it is not improbable that the latter will remain in a nervous state for some time, and will probably shape its course more or less independently of the American market. The main reason for this is that the supplies which have come into sight since the close of last year have been substantially increased, as indicated by the London visible supply amounting on January 15 to 68,886 barrels, compared with 56,148 barrels a year ago. The statistical position has thus been sharply reversed from what it was three months ago, as indicated in our issue of October 30. While the London market is over-supplied, almost the reverse is suggested to be the case across the Atlantic, where the position is said to be sound. Commenting on the situation at mid-September last, an American authority stated that that month opened up with supplies at all the primary American ports, at many stills, and at London and afloat of 20,000 barrels less than a year previous, and that the statistical position was then very satisfactory. The forecast that was made by that authority that the September and October receipts would be only a few thousand barrels proved, however, rather premature, the "scrape" crop having yielded more than anticipated. The outlet for American turpentine on this side, and also on the Continental markets, has undoubtedly been to a certain extent displaced this season by the relative cheapness of either French and Spanish spirit. Another factor, perhaps, at the expense of the genuine American gum spirit has been the freer use of so-called "white spirit," which is very much cheaper than American turpentine. We give below the Board of Trade figures covering the past two years:—

Cwt.	1925	1926
U.K. imports	523,973	418,569
U.K. re-exports	22,075	53,470
U.K. net imports	501,898	365,099

Incoming supplies for 1926 were thus considerably smaller, and re-exports were abnormally heavy, this chiefly referring to takings in the first half of the year. The

returns compiled by a trade authority on December 31 last were as follows:—

Barrels	1923	1924	1925	1926
London deliveries ..	93,751	102,694	88,568	105,941
London stocks ..	30,882	37,046	59,574	45,113
London landing and afloat ..	—	—	—	19,675
London total visible supply Dec. 31 ..	30,882	37,046	59,574	64,788
London spot value per cwt. Dec. 31	74s.	63s. 6d.	68s.	58s. 6d.

The two extreme prices touched for last year were 70s. 9d. and 58s. 3d., as recorded on June 18 and near the end of the year respectively; the average price was about 64s., and consumption was undoubtedly stimulated by the relatively low figure, as emphasised by the much larger deliveries denoting an excess over the previous year of over 17,000 barrels at 105,941 barrels. Half that excess was apparently taken for re-export, so that the other half would represent an increase in home consumption, in spite of the coal trouble. But for the latter a higher range of values would presumably have been reached. There has been an increase in the American crop yield, but this increase has seemingly been absorbed, while it is asserted that the world's reserve stocks at the close of last year were only about equal to those that existed a year ago.



GRANVILLE SHAW

[With acknowledgments to Vittorio Grassi].
MISS PHARMACIST "HOLDS THE D.D.A. BABY."

ABOVE THE LAW.—"The Way of the World" column in "The Morning Post" of January 26 contains the following: "I must confess," a correspondent writes, "to a certain cynical amusement when in the Great Hall of the British Medical Association yesterday Sir Berkley Moynihan was described by the Minister of Health as 'one of the greatest British surgeons on a subject that was of first importance to the nation.' The warning notice of the General Medical Council objects to 'procuring or sanctioning or acquiescing in the publication of notices commending or directing attention to the practitioner's professional skill, knowledge, services or qualifications.'"

Pilula Ferri, B.P.

By J. F. Liverseege, F.I.C., Ph.C.

MR. J. F. LIVERSEEGE, F.I.C., Ph.C., the Birmingham City analyst, raised important points in connection with B.P. preparations and processes in two papers on "Dried Sulphate of Iron" and "Iron Pills," which were discussed at a well-attended meeting of the Birmingham Pharmaceutical Association on January 20, with Captain E. C. Bennison in the chair.

Dried Iron Sulphate

Dried sulphate of iron in the British Pharmacopœia of 1867 was described as $\text{FeSO}_4 \cdot \text{H}_2\text{O}$ (without assay), but the 1885 B.P. required at least 97.5 per cent. of this salt. In the B.P. of 1898 the minimum strength was lowered to 92.5 per cent., and this was reduced further in the B.P. of 1914 to at least 77 per cent. of FeSO_4 (equivalent to 36.2 per cent. of $\text{FeSO}_4 \cdot \text{H}_2\text{O}$). Lunan, in 1888, found 89 per cent. of $\text{FeSO}_4 \cdot \text{H}_2\text{O}$ as the average of 19 samples (ranging from 98.4 per cent. to 75.2 per cent.), and Lothian (1898) gave 82.1 per cent. to 70.5 per cent. in five wholesale samples, but very few analyses have been published since.

Twelve samples of "dried sulphate of iron" bought at retail pharmacies last year contained from 84.1 per cent. to 69.5 per cent. of FeSO_4 (or a range of 94.1 per cent. to 77.7 per cent. of $\text{FeSO}_4 \cdot \text{H}_2\text{O}$). Seven samples (F to L) were below the B.P. limit, chiefly owing to moisture, of which they lost from 8.4 per cent. to 19.8 per cent. on drying. Sample L differed from the others in having a greenish tinge. All the samples would pass the B.P. limit if the percentage of FeSO_4 were calculated on the dry salt, the least being 79.6 per cent. of FeSO_4 . Whether the large proportion of water was due to inefficient preparation or to mode of storage is not known, but some of the samples had been in stock a long time.

Experiments with small samples exposed on watch-glasses in a dry, rather warm room showed practically no difference in moisture content during nine days, but in another room various dried samples gained from 8 per cent. to 20 per cent. of moisture in thirteen days. Evidently there is a great deal of difference in the rate of absorption of moisture, but if bottles of the salt are kept properly closed there should be no great deterioration due to absorption.

The British Pharmacopœia of 1914 requires that ferri sulph. exsic. shall be "slowly but entirely soluble in water." None of the samples complied with this requirement, though in several cases the amount of insoluble matter was quite small. The proportions in 12 samples varied from 0.3 per cent. to 3.3 per cent.

The B.P. limit of 77 per cent. FeSO_4 appears reasonable, but the requirement as regards insoluble matter seems unduly stringent. A limit for the percentage of moisture lost at 100°C . might be added.

Experiments were also made on effect of temperature in preparing small quantities of the salt. The best sample (M1), containing 87.0 per cent. of FeSO_4 and only 0.2 per cent. of insoluble matter, was obtained by drying ferrous sulphate for 30 minutes on a sand bath at about 150°C . A longer drying at this temperature gave a worse result (M2), whilst at 230°C . the insoluble matter was 15.0 per cent. (M4). An increase either of temperature or time occupied in drying thus produced a lower result by simultaneous formation of basic sulphate of iron and of ferric sulphate. Sample M3 and N3 dried 90 minutes in the water oven gave 82.5 per cent. FeSO_4 and 1 per cent. insoluble.

The B.P. 1867 permitted the salt to be prepared between 100° and 204°C ., but the next two editions prescribed 100°C . In the 1914 B.P. no directions for preparations are given, but the Committee of Reference in Pharmacy (in 1906) suggested 100° to 110°C .

Detailed results are given in Table I, and indebtedness is expressed to Mr. A. L. Williams, A.I.C., for this experimental work.

TABLE I.—FERRI SULPHAS EXSICCATA

—	Original Sample				Dried Sample		
	FeSO_4 per cent.	Moisture per cent.	Insol. water per cent.	Loss at 100°C . per cent.	FeSO_4 per cent.	Dried at	Time.
<i>Bought Samples:</i>							
A ..	84.1	94.1	0.5	2.3	86.0	—	—
B ..	84.0	94.0	0.8	1.9	85.6	—	—
C ..	83.1	93.0	0.9	0.6	83.6	—	—
D ..	77.2	86.3	0.3	7.0	83.0	—	—
E ..	77.0	86.1	3.3	3.3	79.6	—	—
F ..	75.6	84.6	0.9	8.4	82.5	—	—
G ..	75.1	84.0	1.0	10.0	83.4	—	—
H ..	74.8	83.7	0.4	11.8	84.8	—	—
I ..	73.2	81.9	1.8	12.9	84.1	—	—
J ..	72.4	81.0	2.6	13.9	84.1	—	—
K ..	71.7	80.2	0.8	11.5	81.0	—	—
L ..	69.5	77.7	0.3	19.8	86.6	—	—
<i>Prepared Samples:</i>							
M1 ..	87.0	97.3	0.2	1.1	88.0	150°C .	30 mins.
M2 ..	85.5	95.6	0.8	0.2	85.7	150°C .	45
M3 ..	82.5	92.3	1.0	0.9	83.2	100°C .	90
M4 ..	59.4	66.4	15.0	—	59.4	To 230°C .	20
N1 ..	82.3	92.0	1.3	0.2	82.5	About 135°C .	30
N2 ..	69.1	77.3	6.1	0.2	69.3	About 135°C .	75
N3 ..	82.8	92.6	0.8	0.9	83.5	100°C .	90

Iron Pills

The samples analysed included some bought from pharmacists as "Five-gr. iron pills," and others supplied in original packages by pharmaceutical friends.

The requirements of successive Pharmacopœias are given in Table II. The 1898 B.P. prescribed 30.6 per cent. of dried ferrous sulphate. In the 1914 edition this was increased to 34.0 per cent. and the sodium carbonate augmented in proportion. Apparently the compilers of the B.P. overlooked the fact that the minimum percentage of FeSO_4 in dried sulphate of iron had been decreased from 82.7 to 77.7. Therefore an iron pill made with dried ferrous sulphate containing this minimum percentage would contain only 20 per cent. of FeCO_3 , and not 22.5 per cent. as is required. This official requirement is inconsistent with the ingredients ordered, so that the pill need not contain more than 20 per cent. FeCO_3 . In the table the FeCO_3 is calculated on the assumption that all the iron is converted into FeCO_3 , and that all the CO_3 of the sodium carbonate is converted into FeCO_3 . The 1914 formula has for limit strength enough sodium carbonate to produce 22.4 per cent. of FeCO_3 , whereas the iron is only enough to produce 20.0 per cent. The higher figure for the iron, 23.2 per cent., is a theoretical one based on the highly improbable supposition that dried sulphate of iron might be 100 per cent. $\text{FeSO}_4 \cdot \text{Aq}$. The two previous editions show similar slight excess of carbonate. From these figures, five-gr. iron pills should contain from 1.0-1.16 gr. of FeCO_3 and from 1.2-1.4 gr. of Na_2SO_4 , with a slight excess of Na_2CO_3 .

Blaud's Pills were originally made from sulphate of iron and carbonate of potash in 1832, and in 1866 a similar formula appeared in the French Codex. From 1890-1898 "Blaud's Pills" was an official synonym for iron pills, and the other modifications published contain ferrous sulphate with potassium or sodium carbonate. English practice, both wholesale and retail, appears to regard the terms "Pil. Ferri," "Iron Pills" and "Blaud Pills" as synonyms. The labelling of a sample of Pil. Ferri as "Ferrous Carbonate (Blaud) 5 gr." is unsatisfactory, as it suggests that each pill contains 5 gr. of FeCO_3 .

Pil. Ferri Carb., B.P., 1885, consists of saccharated carbonate of iron massed with confection of roses. The B.P. Codex has a preparation of similar nature (with different excipients), but its statement that "each 5 gr. pill contains 2 gr. of ferrous carbonate" is incorrect, as the 3 gr. of ferri carb. sacc. ordered need not contain more than 1.5 gr. of FeCO_3 .

A pill prepared from carbonate of iron would differ from the B.P. pill in containing little or no sulphate, so that iron pills and carbonate of iron pills are two distinct preparations. The substitution of one for the other is both unauthorised and improper, but some retail samples of iron pills were carbonate of iron pills. Mr. Liverseege

added that the pharmacists stated "that they had been supplied by the wholesale houses as prepared according to the B.P." A bottle of pills supplied by a well-known house labelled "Pilula Ferri, B.P.," were carbonate of iron pills.

The disintegration of the pills was tested by putting two pills in a 4-oz. round bottle half full of water, this being laid on its side, and shaken occasionally.

Sugar coating may be removed in five minutes, and pearl coating in an hour or less, whilst gelatin coating swells considerably in two hours. On washing the coating away, the action of the water on the inner coat and the contained pill mass can be more readily observed. Within twenty-four hours the pill should be completely broken down (though the ferrous carbonate does not dissolve), but there is a great deal of difference in the rates of breaking down. Alternative methods of examination tried included incubation of the pills in water and in dilute hydrochloric acid, but the above is simpler and more useful.

The practice of varnishing the pills and dusting them with talc before coating gives in some cases an almost impervious inner coat, which may weight $\frac{1}{2}$ gr. or more.

The black-coated pills appear to be of two kinds:—One, having a gelatin coat which swells up and can be peeled off; in the other the coat comes off in flakes and the colouring matter appears to be some form of carbon. One sample contained a blue dye which was readily soluble in water.

Weights and sizes of iron pills (5 grain) are given in Table III. The average weight of the pills was usually obtained by weighing fifty, and then individual pills were weighed to ascertain the variation from the mean weight. The round pills were also measured.

The sugar-coated pills gave the highest average weight, varying from 6.4-9.0 gr. The white pearl-coated pills came next, the range being from 6.3 to 8.3 gr., and the black-coated pills weighed from 5.2 to 7.4 gr., single samples showing greater variation. Two samples A and E were very uniform, only 8 per cent. of the pills being between 5-10, and 13 per cent. being over 10 per cent. from the mean weight. Rather curiously, A, B, C and D were from the same maker, but different batches.

The above figures suggest that the weight of the coating of some of the pills was quite unnecessarily high. If a satisfactory sugar-coated pill weighs 6.4 gr. why should another weigh 9 gr.? The figures also suggest that a variation greater than 10 per cent. above or below the mean weight is unnecessary.

In one case 1.3 gr. of talc was present as a constituent of the pill, and such addition appears to be unnecessary and undesirable.

The variation in the weight of the pill also raised a difficulty in the analysis as to whether this variation concerns the coating or the pill mass itself? In two pearl-coated pills (weighing 6.12 gr. and 8.08 gr.) the pearl coating differed by 1.44 gr. and the contained Fe_2O_3 by 0.03. Two sugar-coated pills (weight 7.67 gr. and 9.34 gr.) yielded 3.08 and 3.26 gr of ash respectively.

These figures show that the larger part of the variation is due to the weight of the coating, but the ferrous carbonate also varied in different pills from the same sample. The better way would appear to be to select for analysis pills of average weight and make no correction.

Determination of ferrous iron may be low (owing to the pill being hard and slow of solution) or high (due to oxidation of organic matter by the bichromate solution). In THE CHEMIST AND DRUGGIST, 1897, Mr. Liversage recommended the determination of ferrous iron in iron pills by rubbing up in a mortar with thrice normal phosphoric acid (as sugar was not oxidised in ten minutes). The sample of Ferri Carb. Sacch., which thirty years ago contained 33.6 per cent. of FeCO_3 , now assayed has 28.3 per cent. after keeping in a glass-stoppered bottle. Experiments showed that the interference of tragacanth, gum acacia and glucose, and gelatin with the titration is negligible. The use of diphenylamine as an internal indicator, as advocated by Messrs. F. J. Dyer and W. B. Forbes at last year's British Pharmaceutical Conference (*C. & D.*, Vol. CV, No. 2,426, p. 253), also gave satisfactory results, but in this case the sugar coating must be previously removed or the results will be too

high owing to the action of the sulphuric acid. There is a slight difference between the end points with diphenylamine indicator and with ferricyanide, so that the solution of potassium bichromate should be standardised to the indicator used.

Total Ash was determined on two pills, the iron being dissolved in hydrochloric acid and the residual talc ignited and weighed. The filtrate was precipitated with ammonia and ferric oxide weighed (soluble ash being determined by difference). The amount of sulphate present was obtained by heating the unignited pill with dilute hydrochloric acid, filtering, and precipitating as barium sulphate. Both the Fe_2O_3 and the SO_4 may be calculated to Fe_2CO_3 , and the latter should also be calculated to Na_2SO_4 . The pills differed considerably in hardness, but in spite of this a large proportion of the iron was in the ferrous state in every case. As a rule the total iron, expressed as FeCO_3 , did not exceed the ferrous by more than 0.1 gr. It appears, therefore, that the use of glucose in the pills has been a success in preventing oxidation. Details of the analysis of five typical pills are given in Table IV. "G" was a sugar-coated pill (losing a large proportion on ignition); "H" being a pearl-coated, yielding 1.34 gr. of HCl insoluble ash); "I" was a gelatine-coated pill, and contained the proper amount of iron, but the soluble ash (which should be sodium sulphate and sodium carbonate) was low, as was also the Na_2SO_4 , and the FeCO_3 calculated from the SO_4 . It was either a pill prepared from a badly-washed carbonate, or from a mixture of carbonate and sulphate. "J" was a pearl-coated pill, labelled "Pil. Ferri, B.P." The soluble ash (0.81) was much lower than the Na_2SO_4 calculated from the SO_4 (1.59), and this indicates that there was a deficiency of carbonate, and that part of the iron was sulphate. This pill differed from others in being dark green in colour. "K" was a pearl-coated pill, labelled "Pil Ferri, B.P." It will be noticed that the soluble ash was only 0.27 gr., and the Na_2SO_4 only 0.16, indicating that it was Pil. Ferri Carb. and not Pil. Ferri, B.P.

The greater part of the analytical work was done by Mr. A. F. Lerrigo, B.Sc., F.I.C.

Mr. Liversage, in concluding, pointed out that considering that the B.P. is now twelve years old, and that the small quantities ordered probably require modification on the manufacturing scale, he did not think it is reasonable to insist that the B.P. directions and quantities must be strictly adhered to, but he did consider that pills marked "Pil. Ferri, B.P." should contain the essential constituents in strictly proportional quantities. Therefore some of the above-mentioned labels should not have been used.

According to the Food and Drugs Acts it is an offence to sell "any drug not of the nature, substance and quality of the article demanded," and it is suggested that the following requirements are reasonable for five gr. iron pills:—

- (1) They should contain not less than one gr. of FeCO_3 .
- (2) The carbonate present should be chemically equivalent to rather more than the amount of ferrous sulphate (FeSO_4).
- (3) Talc should not be present in the pill mass.
- (4) The pills should not vary more than 10 per cent. above or below the mean weight.
- (5) The pill coats should be moderate in amount, and the pill should disintegrate in a reasonable time.

A pharmacist is also protected by the same section in his relations with a wholesale dealer, and is entitled to know and can appreciate more than the public what is demanded. Suggestions for increase in accuracy of labels are made as follows:—

- (1) "Pil. Ferri, B.P." [Such pills should contain the B.P. proportions of ferrous sulphate, sodium carbonate and glucose.]
- (2) "Pil. Ferri (improved). A 5-gr. pill contains at least 1 gr. ferrous carbonate." [A label to be used when the B.P. process is modified. The word "improved" suggests that the manufacturer would not modify the B.P. process unless he considered he was improving it.]
- (3) "Pil. Ferri Carb, B.P.C."

TABLE II.—PERCENTAGE COMPOSITION OF PIL. FERRI, B.P.

Ingredients	1890	1898	1914
Ferri Sulph. (56.4% FeSO_4 or less) ..	52.3	—	—
Ferri Sulph. Exsic. — (At least 82.7% FeSO_4) ..	—	30.6	—
(At least 77% FeSO_4) ..	—	—	34.0
Equivalent of FeSO_4 ..	28.6 or less	25.3—27.4	26.2—30.4
Pot. Carb. (at least 82%) ..	31.3	—	—
Equivalent of K_2CO_3 ..	25.7—31.3	—	—
Sod. Carb. Exsic. (at least 95%) ..	—	19.4	21.6
Equivalent of Na_2CO_3 ..	—	18.4—19.4	20.5—21.6
Glucose ..	—	—	32.0
FeCO_3 —			
Calculated from FeSO_4 ..	21.8 or less	19.3—20.8	20.0—23.2
" " K_2CO_3 ..	21.5—26.2	—	—
" " Na_2CO_3 ..	—	20.1—21.2	22.4—23.6
Stated by B.P. ..	—	20 (5 gr. pill contains 1 gr.)	22.5
Na_2SO_4 —			
Calculated from FeSO_4 ..	—	23.7—25.6	24.6—28.5
" " NaCO_3 ..	—	24.7—26.0	27.5—28.9

TABLE III.—SIZES OF PIL. FERRI, 5 GRAINS.

	Weight in grains			Difference from mean to			Mean diameter m.m.
	Average	Max.	Min.	5%	5–10%	Over 10%	
<i>Sugar Coated:</i>							
A ..	8.2	8.6	7.5	92	8	0	8.3
B ..	9.0	9.6	8.0	71	25	4	8.7
4 samples	6.4—9.0	9.6	6.1	—	—	—	—
<i>White Pearl Coated:</i>							
C ..	7.8	9.6	7.5	88	8	4	7.9
D ..	7.3	8.3	8.3	36	51	13	7.6
13 samples	6.3—8.3	9.6	5.3	—	—	—	6.6—8.0
<i>Black Coated:</i>							
E ..	5.3	5.4	5.0	92	8	0	7.3
F ..	6.4	7.0	5.4	46	42	12	7.0
4 samples	5.2—7.4	7.8	4.9	—	—	—	—

TABLE IV.—ANALYSES OF PIL. FERRI, 5 GRAINS (WEIGHTS IN GRAINS)

	G	H	I	J	K
Ash ..	1.93	3.36	1.42	3.67	3.04
Loss on ignition ..	4.57	2.74	3.78	2.87	3.52
Total ..	6.50	6.10	5.20	6.54	6.56
Ash insoluble HCl ..	0.06	1.34	0.18	1.96	1.75
Fe_2O_3 ..	0.70	0.76	0.86	0.90	1.02
Soluble Ash ..	1.17	1.16	0.38	0.81	0.27
Soluble in HCl ..	6.44	4.76	5.02	4.48	4.81
Na_2SO_4 (calc. from SO_4) ..	1.17	1.16	0.42	1.59	0.16
FeCO_3 ..	0.96	0.95	0.35	1.30	0.13
" (calc. from Fe_2O_3) ..	1.02	1.11	1.25	1.31	1.49
" by titration ..	1.00	0.89	1.23	1.20	1.42

Discussion

An interesting discussion was opened by Mr. C. A. COFMAN-NICORESTI, who pointed out that the sodium sulphate, Pil. Ferri, B.P., was troublesome, as it upset the ferrous carbonate content. The obvious Pharmacopœial intention was to provide the patient with a pill containing 22.5 per cent. ferrous carbonate. He contended that it is not sufficient to prepare a pill to pass the test of the analyst when fresh, but that a larger supply is needed to ensure that the patient should get the full strength prescribed. If the formula did not ensure the keeping the pharmacist exercises his ability to provide such latitude that the obvious intention of the prescriber is fulfilled. He considered the Pharmacopœia as an ordinary prescriber, wherein the skill, knowledge and art of the pharmacist counted. As Mr. Liverseege pointed out, the Pharmacopœia actually expects the chemist to produce more iron than is put in. Pil. Ferri Carbonate, B.P.C., was a hint that an improvement of the B.P. pill was desirable.

Mr. H. BERRY remarked that the B.P. ferri sulph. exsic. was most unsatisfactory because of its variation in purity consequent upon conditions during drying and its hygroscopic character, these being important because the ferrous carbonate content of Pil. Ferri, B.P., depends thereon. He had recently tried a French method of preparing monohydrated ferrous sulphate which, by add-

ing ferrous sulphate (200 grams) to 50 per cent. sulphuric acid (100 c.c.) heated in a water bath. The fine white product, after washing with alcohol, is claimed not to be hygroscopic, and is free from ferric iron. He added that some surprising results are obtainable by treating pills with dilute alkali or acid at body temperature with constant stirring. Under such conditions pills are far more soluble than stated by Mr. Liverseege. He did not see why the name "Blaud" should be limited to Pil. Ferri, B.P. The inclusion of talc was probably to meet some fanciful requirement of a customer.

Mr. E. W. MANN could not understand the objection to a grain of French chalk in a pill, seeing that considerably more was swallowed in the form of pearl coating. A well-prepared Blaud's pill would not alter appreciably in ferrous iron content on keeping. The hardness of some of the pills analysed was doubtless due to drying out in keeping. Provided the actual pill was of correct weight and composition, variation of the thickness of the coating did not seem to be material. A point of importance was that some pharmacists habitually sold 4-grain pills when iron or Blaud pills were asked for.

Mr. F. H. ALCOCK wished Blaud's spirit would descend and tell what his formula was intended to be. No coated pill could be considered as B.P., since the Pharmacopœia did not prescribe any coating, and though it directed pills to be varnished, the Pharmacopœia had some strange ways, such as instructing one to put 30 oz. of water into a pint measure.

Mr. LIVERSEEGE, in replying, said he did not see any reason why patients should not have their pills coated if they so desired. If he were a retail chemist such large variation in weight (9 to 5 grains) for a 5-grain pill would not be expected, and a greater solubility of coating and core would be preferred. The iron pills supplied were of proper strength, which showed that glucose had proved to be a success in preventing oxidation. It would be better if pil. ferri carb. was distinctly labelled, and differentiated from iron pills. He deprecated his remarks being used as sensational news items, as happened with aspirin tablets.

Time did not permit of the reading of a paper by Mr. H. BERRY, B.Sc., Ph.C., who gave instead a few notes on preparing liq. bism. et ammon. cit. and lin. ammonie.

Retail Pharmacists' Union

Bournemouth.—The Bournemouth Branch held a meeting on January 19, at which Mr. H. J. Martin (chairman) welcomed three new members. A discussion was held on the need for better remuneration for insurance dispensing and for closer co-operation amongst panel chemists.

Bristol.—At a joint meeting of the Bristol branches of the R.P.U. and Pharmaceutical Society, held on January 13, Mr. Allan Ball in the chair, Mr. P. F. Rowsell gave an address on *Testing Insurance Prescriptions*, urging the necessity for a universal scheme. In future the selection of test prescriptions may be in the hands of the chairman of the Insurance Committee in consultation with the analyst, who must have special pharmaceutical knowledge. When a pharmacist has been warned that his dispensed medicine is unsatisfactory, he should send for analysis the second half of the sample taken, retained for that purpose. In case the report is still adverse, the pharmacist is advised to refrain from replying to any communication until he has consulted the secretary of the local branch. When a fine is inflicted, the pharmacist who asks for an inquiry by the Ministry of Health should realise that the Minister's representative may quash the case, decrease or increase the fine. The testing of dressings is at present not altogether satisfactory. Pharmacists are advised to buy the sealed packets necessary in all cases under warranty from the makers or packers.

Ipswich.—The Ipswich and Suffolk Branch held the annual meeting recently, when the following officers were elected: *Chairman*, Mr. G. W. Hales; *Secretary and Treasurer*, Mr. E. H. G. Bennett; and *Committee*, Messrs. Collins, Davis and Welch. The retiring officers were thanked for their services.

Festivities

"Ladies' Night" at Birkenhead

THE Birkenhead and Wirral Pharmacists' Association and Branch of the Pharmaceutical Society held a "ladies' night" on January 13 at the Exchange Hotel, Liverpool. Over forty guests sat down to a capital dinner, after which a musical programme was provided by some of the Birkenhead and district well-known artists.

A Dublin Dance

ABOUT 200 members of the staffs of Hayes, Conyngham & Robinson, Ltd., and their friends held an enjoyable dance at La Scala ballroom, Dublin, on January 7. Among those present were Sir Thomas and Lady Robinson, Captain and Mrs. Bedworth, Mr. and Mrs. F. J. Robinson, Mr. and Mrs. T. M. Robinson. The committee included Messrs. F. J. Robinson, I. G. Kelly (hon. secretary), W. Webb, the Misses Davies, Kerr, L. Geraty, O'Kelly, and Bradfield.

North London Chemists' Dance

THE North London Pharmaceutical Association held a dance at Beale's Restaurant, Holloway Road, on January 20. The prevailing fog prevented overcrowding, but there was seen some of the best dancing which has taken place at pharmacy socials this session. Among those present were Mr. and Mrs. Walters, Mr. and Mrs. Downing, Mr. Skinner, Mr. and Mrs. Swanston, Miss Hodgkinson, Mr. Rawlings, Mr. and Miss Tocher.

S.E. Londoners' Dance

ON the invitation of the chairman (Mr. H. S. Foster), nearly two hundred members and friends of the S.E. Metropolitan Branch of the Pharmaceutical Society attended the social and dance at the Woolwich Town Hall on January 6. The function was prefaced by a short organ recital on the King Edward memorial organ by Mr. J. Roberts, who also rendered selections between the dances. In a short speech the chairman, after extending cordial New Year greetings to the friends, called for an expression of appreciation to Messrs. W. C. Sayers, Ph.C., W. T. Tucker, and W. Turner, the organisers, for the arrangements.

New Year Party

THE East Metropolitan Branch of the Pharmaceutical Society held a New Year party on January 6 at Slater's Restaurant, 192 Oxford Street. Mrs. Thomson, wife of the Vice-President, presented a handsome bouquet to Mrs. Catto, who, with Mr. Alex. Catto (President), received the guests. A series of games occupied the evening until the interval for supper, when Mr. Catto thanked those who had contributed to the success of the evening, especially mentioning Mr. Walter Gwinn and Mr. Ben Wathen, and the wholesale houses who provided the prizes. Songs were contributed by Miss Hevey and Mr. Bentcliffe, accompanied at the piano by Mrs. Gwinn. The prizes were distributed by Mrs. Catto to the winners of the various events.

Bradford Chemists' Whist Drive

ABOUT eighty people spent an enjoyable evening at the Parade Café, Bradford, on January 19, the occasion being the annual whist drive and dance of the Bradford Branch of the Pharmaceutical Society. The whist players occupied sixteen tables, and the masters of ceremonies were Messrs. W. Sutcliffe and A. T. Bailes. Prize-winners were:—*Ladies*, Miss Waterhouse and Mrs. Appleyard; *Gentlemen*, Mr. H. O. Brown and Mr. M. Firth. The prizes were given by wholesale houses. After supper the remainder of the evening was spent in dancing. A novelty balloon dance was a feature of the evening, and Mrs. Wilson and partner were the winners. The M.C. for dancing was Mr. L. Fawthrop, who also gave the prizes for the novelty dance.

Manchester Chemists' Whist Drive

THE annual whist drive and dance of the Manchester Pharmaceutical Association was held on January 12 at

the Midland Hotel. The attendance was above the average, the function being graced by the presence of the Lord Mayor and Mayoress of Manchester. The President (Mr. J. H. Franklin) and Mrs. Franklin held a reception from 7 to 7.30, and dancing commenced in the small ballroom at 7.45. Messrs. J. H. Franklin, J. A. Collins, and J. H. Nidd were the masters of ceremonies. The whist drive prize-winners were:—*Ladies*: Mrs. J. R. Edwards, Mrs. Beard, Mrs. Jackson, Mrs. J. C. Grime. *Gentlemen*: Mr. J. R. Edwards, Mr. A. J. Pidd, Mr. J. C. Jackson. After supper was served the Lady Mayoress presented the prizes.

A Staff Dance

THE R. H. Heward Company, surgical instrument manufacturers, held the annual staff dance on January 8 at York House, the new town hall of the recently constituted borough of Twickenham. The Mayoress, Mrs. Leeson, in the absence through illness of the Mayor, attended the function, and was presented with a bouquet on behalf of the firm, and with a picture of old High Shot House for the Mayor (Dr. Leeson), who is keenly interested in old Twickenham. About 150 guests were present. Dancing commenced at 6.30 p.m. and continued until midnight, with an interval for supper, when a fancy dress parade took place, prizes for the best costumes being presented by the Mayoress. The "High Shot" Sports Club of the firm contributed a few musical items. A bouquet was presented by the staff to Mrs. Heward.

"Allenburys" Athletic Club Dinner

THE annual dinner of the "Allenburys" Athletic Club was held at Lyons Corner House, Coventry Street, on January 20, the President (Mr. F. W. Gamble) in the chair. About 250 were present. Mr. Norman Evers proposed "The Firm," and Mr. R. J. Hanbury replied on behalf of the directors. The toast of "The Club" was given by Mr. D. J. Bowen, and Mr. Nelson, in reply, spoke of the increasing strength of the "Allenburys" Club. Since last season two new sections had been formed, net ball and miniature rifle. He referred to the great interest the directors had in the welfare of the club, and to the new ground and pavilion which was in course of preparation. Mr. W. J. Bush, in giving the toast of "The Chairman," spoke of Mr. Gamble's many activities and achievements. Mr. Gamble suitably replied.

Brighton Chemists' Dinner

A DINNER and smoking concert of members and friends of the Brighton and Hove Association of Pharmacy was held at the Regent, Brighton, on January 5. There was an attendance of sixty, the chair being occupied by the President (Mr. F. W. Burgess), Mr. H. C. Browne (President, Eastbourne Association), and Mr. H. Skyrme (President, Hastings Association) were among those present. Mr. A. J. Franklin proposed "The Brighton and Hove Association of Pharmacy," and in his reply the President mentioned that the Association was numerically stronger than it had ever been. Mr. J. Plowright proposed the toast of "The President," and this was received with musical honours. Mr. H. C. Browne and Mr. H. Skyrme responded to the toast of "Kindred Associations." A musical programme was provided by Messrs. L. Franklin, R. G. Eacott, F. W. Funnell, E. Morris, with Mr. E. Richardson at the piano.

Social Evening at Bath

THE annual social evening of the Bath Branch of the Pharmaceutical Society was held on January 20, when there was a gathering of about sixty at the Old Red House, and as the pharmacists and their friends arrived they were received by the chairman (Mr. E. Williams) and Mrs. Williams. The winners of handsome prizes, which were presented by Mrs. Williams, were: *Ladies*, Mrs. Clarke, Miss E. Jenkin, Mrs. E. Brake, Mrs. Luther Wilson, Miss G. M. West, Miss Cluett, Miss E. Olds. *Gentlemen*, Mr. C. Adams, Mr. Clapp, Mr. W. H. Weeks, Mr. W. J. Hallett, Mr. R. Armstrong, Mr. A. P. Mehan. Cigarettes were presented to Messrs. W. Cooper and W. J. Hallett (the hon. secretaries), the latter being master of ceremonies for the whist drive. Mr. W. J. Hallett expressed the thanks of the company,

to the chairman and Mrs. Williams for their kindnesses in the course of the evening, including the gift of some of the prizes. Dancing commenced at 10 p.m.

Aberdeen Golf Club Social

THE Aberdeen Pharmacists' Golf Club held their annual winter entertainment in the Royal Hotel on January 19, when upwards of eighty guests were present, including representatives from wholesale houses. At supper Mr. H. M. Dugan (captain) presided, and the prizes were handed over by Mrs. Dugan as follows:—*Ness Cup*: (1) M. C. Ross, (2) T. McBain. *Paterson Cup*: (1) J. Forsyth, (2) J. Wood; semi-finalists, C. A. Michie and W. G. Mitchell. *Foursome Competition*: (1) C. A. Michie and W. Marshall, (2) J. Forsyth and W. F. Hay. *Cruden Bay*: (1) H. Bremner, (2) G. Hughes. *Banchory*: (1) J. McConnach, (2) Ian Fraser, (3) W. G. Mitchell. *Peterhead*: (1) H. Bremner, (2) S. Anderson, (3) W. S. Cran. *Captain's Prize*: J. McConnach. *Winter Competition*: J. Michie. *Whist Prizes*: *Ladies*: (1) Miss E. Kinnaird, (2) Mrs. F. W. Forbes, (3) Mrs. M. K. Watt, Miss Barclay; *Gentlemen*: (1) J. McConnach, (2) W. J. Hendry, (3) R. Paisley, W. Morgan. Mr. David Ross (Paterson & Sons, Ltd.) congratulated Mr. Forsyth on winning the Paterson Cup outright, and, on behalf of his firm, offered another cup to replace the one now won by Mr. Forsyth. Votes of thanks were given to Mr. Ross for his generous gift, to Mr. W. G. Mitchell for his work as secretary, and to wholesale houses and friends who presented the prizes. A dance followed.

Southport Chemists' Dinner

THE annual dinner and smoking concert of the Southport Branch of the Pharmaceutical Society took place on January 11. Mr. T. R. Newton, chairman, presided, and among those present were:—Mr. F. Pilkington-Sergeant (ex-President of the Pharmaceutical Society), Mr. R. Stirling Macdonald (treasurer and vice-chairman of the branch), Mr. H. Orr (secretary), Mr. W. H. Kendrew (past-President), Mr. A. H. Messenger, Mr. J. W. Gee, Mr. G. Rushton, Mr. F. Pilkington-Sergeant, junr., Mr. T. Wilson, Mr. M. A. Shackleton, Mr. J. Birnie, and Mr. James. Mr. Newton extended a cordial welcome to Mr. Pilkington-Sergeant, who was only just recovering from a painful illness. Their presence that night was in the interests of one of the most important parts of the work of the Society, the Benevolent Fund. Southport had not a large branch, but in connection with that fund they had reached a high standard of excellence, and he hoped that they were going to keep up that high standard. He proposed the toast of "The Benevolent Fund," and coupled with it the name of Mr. Pilkington-Sergeant. Mr. Pilkington-Sergeant, in reply, congratulated Mr. Newton upon the healthy branch they had in Southport. It was very nice to be head of a successful branch. There were a lot of branches which were not successful; they did not quite know what to do and they did not do it. (Laughter.) They had, that night, to consider particularly the Benevolent Fund. He was sorry to say there had been a gradual decrease in subscriptions. Southport had a good record, and it had been said that the activities of Southport were due to its proximity to Liverpool. He might describe the activities of Liverpool—if there was any activity in Liverpool—(laughter)—as due to the close proximity of Southport. He recalled the figures that had been published respecting the contributions to the Benevolent Fund, and congratulated Southport upon occupying the fourth place in the list. What he would like to say on behalf of the Pharmaceutical Society Council was that they would like a substantial increase in the annual subscriptions. He did not agree with those people who inferred that special efforts detracted from the annual subscriptions. Before the council administering the fund could make grants, they had to have grants from somebody. The subscribers provided the grants, and that was why he was particularly proud of Southport, for what it had done, for what it was going to do that night, and for what it would do in the future. Mr. Newton announced that Lieut.-Colonel Sir Godfrey Dalrymple-White, M.P. (for Southport), in apologising for his absence, had sent a message expressing his best wishes for the Benevolent Fund, and had opened the subscription with a donation. (Applause.)

Their secretary had acknowledged that gift on behalf of the branch and had given him some examples of the work of the Benevolent Fund. The collection was then taken, and realised £19 17s. 6d., the most ever raised at the annual dinner. Mr. Newton afterwards handed to their ex-chairman, Mr. Kendrew, a fountain-pen as an appreciation of the services he had rendered to members. During eight and a half years Mr. Kendrew had only been absent from one meeting.

Newcastle-on-Tyne Chemists' Dinner

THE annual dinner of the Newcastle-on-Tyne and Northumberland Branch of the Pharmaceutical Society was held on January 12 at the County Hotel, Newcastle-on-Tyne. The chairman, Mr. J. Whittle (Morpeth), presided, and among those present were:—Mr. Hugh N. Linstead (secretary of the Pharmaceutical Society), Dr. H. Dickie (chairman, Northumberland Panel Committee), Dr. S. Worthington (secretary, Newcastle Panel Committee), Drs. Baty, Williamson and Forgie (Morpeth), Dr. E. C. Edgar (Principal of Rutherford College, Newcastle), Mr. T. Maltby Clague (Newcastle), Mr. and Mrs. George H. Cooper (Newcastle), Mr. A. Stewardson (Newcastle), Mr. Rufus Hepworth (Newcastle), vice-chairman, and the members of the Council. "The Pharmaceutical Society" was proposed by Mr. H. C. Roper, who expressed the opinion that the Council should have a member from Northumberland and Durham, and tendered a cordial welcome to Mr. Linstead. He trusted, said Mr. Roper, that the Council would be able to come to some agreement by which the Newcastle school (the Rutherford College classes) could be approved as a Part II school. They now had 80 students, half of whom would be qualifying in a year or so; and it seemed to him unjust that there were no adequate facilities for their completing their studies in Newcastle, so excellent a centre geographically for Northern students. It was thought, proceeded the speaker, that the Society might be deprived of some of its activities as the result of the departmental inquiry into the Poisons Act. A firm stand should be made on this matter. They could do so much better, obviously, if every qualified chemist were obliged to join them. He hoped that the appeal being made to raise a fund for the specific purpose of being represented in Parliament would be entirely successful. Mr. H. N. Linstead, in the course of his reply, said that the apparent *impasse* in regard to approved schools had its origin in circumstances over which the Council had no control, and he thought the only way out was for the Newcastle Society first to tackle the problem for itself. As to the departmental inquiry, nobody could tell what might happen when they got a Bill in Parliament; they might even find the whole Pharmacy Act in the melting-pot! Some 500 members had joined their ranks last year, so the Society now numbered 12,950, a record. They were flourishing as never before, and, he believed, had nothing to fear from any Government inquiry. Having five full-time inspectors, including the one resident in Newcastle, he thought it would be agreed they were efficiently doing their duty of seeing that the Pharmacy Act was duly observed. Surely chemists had a right to run their business with a minimum of interference from the State, for while the State owed a duty to the public, it should perform that duty with the minimum of interference and leave them free to carry out their calling. They all knew the drawbacks of Government by legislation, and he believed the country was getting very tired of that kind of legislation. Unfortunately, they might have to put up with more of that sort of thing. Government departments appeared to act independently of the decisions of courts of law, and sometimes seemed to legislate only for the comparatively few degenerates, making the general public suffer. It was obvious that, until they had their own representative in the House of Commons, their interests would not be adequately safeguarded, and he hoped the special meeting to be held in Newcastle shortly in connection with the Society's £10,000 fund would result in the equivalent of £1 per head being contributed by the branch. Mr. R. Pool gave "The Medical Profession," stressing the harmonious relations existent between the medical men and themselves; and Drs. H. Dickie and S. Worthington responded. The last toast was "The Visitors and Ladies," wittily given by Mr. C. E. Layne and acknowledged by Dr. E. C. Edgar.

Making Dispensing Pay

III. Advertising the Department

Is it unprofessional to advertise the dispensing department of a chemist's business? Surely, there are ways of doing it that can be strictly ethical and professional. A few of the various ways may be indicated. By sheer merit, on the principle that quality always tells: one satisfied customer will tell another, and like a snowball the department will grow faster as it grows bigger. By using a distinctive style in stationery, labels and wrapping paper. By circulars sent direct to customers. (Newspaper advertising can be used to advantage by some chemists.) By letters sent to and the personal recommendation of the medical profession. By having suitable window displays and by the general appearance and cleanliness of the establishment. Some, if not all, of these methods can be used with advantage by most pharmacists. Some of these methods are quite obvious, and any practical pharmacist, knowing his work, will have used them almost automatically. There are one or two things, however, that should be emphasised. In your newspaper and circular advertising tell your would-be customers something about dispensing. Let them know that none but qualified pharmacists dispense prescriptions in your pharmacy. Explain your checking system and the safeguards you have to prevent mistake or inaccuracy. Do not be backward in telling them of your apparatus, your reference library, the quality and freshness of your drugs, the selection and testing of the same in order that the physician's orders shall be fulfilled to the last degree. Show them that as much care should be taken to choose a pharmacist as is taken to choose a physician. It is well to be perfectly frank in advertising and tell the world that cheap and inferior drugs can be obtained, but not at your pharmacy. Point out that life demands the best, and the preservation of life and health is your main concern. Do not advertise things as "cheap" at any time. If you have a line which is a particularly good bargain, let it be "low-priced," if you like, but never "cheap." Beware of ambiguous phrases and sentences such as, "We dispense with accuracy" or "Dispensing with care," both of which have been used. It is not everyone who can see the double meaning, but those who do see it get a good laugh and a dubious impression of the business. Here are two suggestions for newspaper, store paper, circular or parish magazine advertising:—

OUR DISPENSING DEPARTMENT.

WE EMPLOY	{	NONE BUT QUALIFIED PHARMACISTS. THE HIGHEST QUALITY OF DRUGS. A PERFECT CHECKING SYSTEM. A FULLY EQUIPPED LABORATORY.
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GALEN'S MODERN PHARMACY.

10 New Road, Blankville (opposite Post Office).

QUALITY, ACCURACY, INTEGRITY.

PRESCRIPTIONS DISPENSED.

INVALID AND SICKROOM SUPPLIES.

ASK YOUR PHYSICIAN ABOUT US.

'PHONE US FOR QUICK SERVICE.

OUR ONLY ADDRESS, 10 NEW ROAD, BLANKVILLE.

Telephone (day or night) 1010.

The above are suitable for slips to put in with accounts or other advertising matter, or even for parish magazine or bazaar handbook advertising (both of which the provincial chemist is almost bound to do). The advertising that will really "get there" is that with some human interest, such as the following:—

CONFIDENCE!

It is of vital importance that medicine should be active and accurately dispensed; that the ingredients should be pure and fresh.

It is impossible for you to tell at once. Your qualified, reliable chemist is your only safeguard. We employ none but qualified pharmacists to dispense your prescriptions, and use none but the finest obtainable drugs.

Our years of service, hundreds of satisfied customers, and the confidence of your physician are your guarantee.

YOU ARE SAFE IN
BRINGING YOUR PRESCRIPTIONS
TO GALEN & Co.,
CHEMISTS, HIGH STREET.

A few ideas for a letter to the residents of the neighbourhood. This type of letter should be typewritten or printed to look like typewriting and signed by the chemist. If possible, have either on the envelope or letter something like the following couplet:—

"I do remember an apothecary,
And hereabouts he dwells."
("Romeo and Juliet.")

A WORD ON MEDICINE.

DEAR MADAM,

If ever you or your family need medicine it should be made up EXACTLY as your physician orders it.

You get the best physician you can; you should therefore go to the pharmacist who will give you the best possible service. A slight change, a mistake, or the use of drugs that are not active because they are not fresh, and the medicine intended to do good not only does not do that, but may be distinctly harmful.

Correct dispensing means more to us than anything else. Profit is secondary. We expect to make a profit, of course, but only a reasonable and legitimate one.

We want you to know that our dispensing department is safe both scientifically and economically. None but qualified chemists dispense prescriptions, and all drugs and chemicals are of the best. Our checking system is the best that experience can devise. Our laboratory is fully equipped, and all drugs are tested on coming into stock.

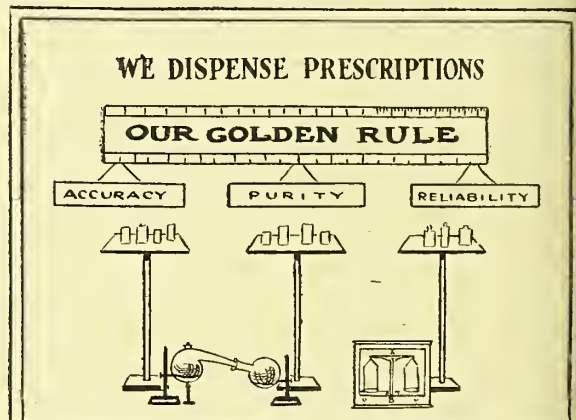
EMERGENCIES.—Telephone us if an emergency occurs and medicine is required in haste; then other work will be stopped to allow the urgent medicine to be dispensed.

OUR PHARMACY IS AT YOUR DISPOSAL, and we ask you to use it.

Yours faithfully,

BLANK & Co.

Of course, these are only suggestions based on methods that have proved highly successful. They must be adapted to your own district and type of customers. No one letter will do for all pharmacies, but a letter that has actually been used with success in one district may give suggestions that will be useful in another. The most important point is to reiterate constantly that your main purpose in life is to dispense. Use the shop window occasionally for the purpose. Here are a few suggested displays:—



This window should have a dark background. A large ruler made of cardboard and gilded should be hung about the middle of the window just on the eye level. On it in black letters the words should be written or drawn in block type, "Our Golden Rule." Just above the ruler the words, "We Dispense Prescriptions," should be fixed to the glass. These can be cut out of white paper. Fastened to the ruler are cards bearing such words as "Integrity," "Purity," "Accuracy," "Reliability," "Confidence." On stands have various finished products, such as mixtures, lotions, ointments, pills, tablets, cachets, etc., with small cards explaining what they are. Pieces of apparatus, such as those shown

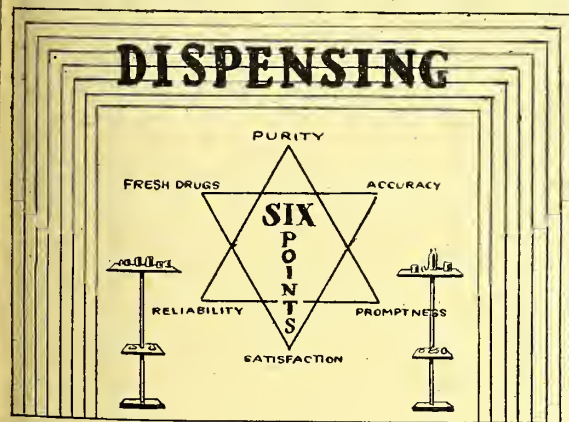
or pill machines, mortars, cachet machine, suppository mould, graduated measures, pipettes or burettes, might cover the base of the window, again, with small cards explaining name and use.

The centrepiece here is a "gold nugget" made by gilding a piece of stone or coal. The background should be black with letters of gold. Gold paper bands will divide the window, and run along the top. The top piece may have some slight design. These crêpe



papers can be had in almost any colour and design. The words, "Purity Guaranteed," should be in Chinese characters, as should the words across the bottom. A shelf at the back should be devoted to various finished products, with explanatory notices.

This is another very simple window to dress, and is very effective. Round the window are strips of coloured paper, if possible of all the colours of the rainbow. The centrepiece is a star made of cardboard, either gilded or covered with some other suitable and striking

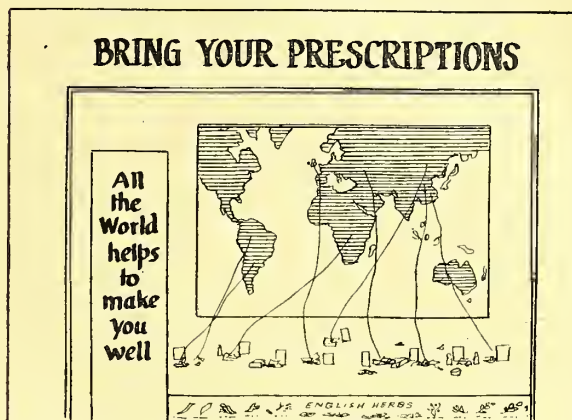


colour. The word "Dispensing" should be in very bold letters stuck on the glass. The other words should be easily read, but smaller. On each side have stands containing either drugs, apparatus or other things appertaining to dispensing, with small cards of explanation.

Lastly, a drug window (see next column). With a map of the world and crude drugs arranged in boxes or bottles with a piece of ribbon showing the country of origin, this window will evoke a great amount of interest. If you have not a suitable map, a local school will have one. Not only will they lend it to you, but they will want to have some of the specimens to show to the school. All along the front selected herbs, either dried or mounted, should be shown. The border can be red or blue with white letters. "Bring your Prescriptions" should be particularly bold. Other showcards, such as the one shown, can be placed down the side. It will be very necessary here to have small

cards giving a brief description of the drugs, with their habitats and therapeutic uses.

One of the most important points in advertising the dispensing service is to have the shop clean and tidy. People will not buy foodstuffs from a dirty shop, and they are not likely to purchase their medicines from a dirty shop. To see a chemist's shop with a few "cob-



webby" sponges and some soiled cartons in the window does not inspire either confidence or respect. Even with dispensing under the National Health Insurance Act people want the best. The multiple shops have set an example in cleanliness which we might all copy with advantage.

Associations' Winter Session

Ealing.—A meeting of the Ealing Pharmacists' Association was held on January 18, the president (Mr. F. A. Lawman) in the chair. A letter was read from Mr. H. R. Storm, who had left the district, resigning from the committee. Mr. J. E. Alcock was appointed secretary to the local branch of the Retail Pharmacists' Union in place of Mr. H. R. Storm. At the close the President appealed for support for the Parliamentary Fund.

Eastbourne.—A meeting of the Eastbourne Pharmacists' Association was held recently, when it was decided to hold the annual dinner at the Burlington Hotel. Mr. H. C. Browne gave a further report on the advisory committee's visit to the technical institute regarding the pharmaceutical classes.

London (N.).—The monthly meeting of the North London Pharmaceutical Association, held on January 18, was devoted to the consideration of Insurance dispensing remuneration. The President (Mr. J. T. Walters) was in the chair. Mr. Jenkins opened the subject, followed by Mr. G. A. Tocher, among the others being Messrs. Walters, Hearle, Steel, Perrett, Rawlins, and Carter. It was felt generally that a minimum of 5d. average should be guaranteed in the fee. The time had passed when the suggestion should be maintained that this is the present fee, the average being only 4.5d. per prescription dispensed.

London (S.E.).—The South-East London Chemists' Association held a meeting on January 18 at which Dr. J. Stanley White gave a lecture on *Vitamins*, illustrated by about fifty excellent lantern slides. The chair was taken by Mr. J. E. Lockyer (Vice-President). In the course of his address Dr. White briefly described some of the experiments conducted in the laboratory of Parke, Davis & Co.

IDENTIFICATION OF PIGS.—It was stated at a recent meeting of the council of the National Pig Breeders' Association that, in the absence of a satisfactory ink for tattooing black pigs, it had been decided to recommend that the identification of each litter be established by notching the ears of the pigs to be retained for breeding purposes or for subsequent registration.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4., January 27.

THERE is evidence of a somewhat better tone in several directions, but the demand is described as patchy and not regular. A larger business than usual was done privately last week after the auctions, and wholesale druggists and manufacturing chemists are busy on home trade requirements. A significant feature of crude drugs is the small stocks available in many items, as importers have hesitated to operate in view of previous heavy losses. Among crude drugs, Matto Grosso ipecacuanha and rhubarb command most interest. Curaçao aloes, senega, and agar agar are firm; areca is slightly easier. Seeds show little change, market being very quiet. Mazagan linseed is firmer, and Dutch caraway easier to arrive. There is more regular business in essential oils, although the demand continues moderate. Clove oil for forward delivery has been selling freely at cheaper rates. Lemon is dearer. Arrivals of new crop bergamot have eased the spot stringency. Citronella oils are cheaper. American peppermint is dull. In the pharmaceutical chemicals group, aspirin is still in brisk demand and prices are inclined to harden. Phenazone is rather dearer, while phenacetin has eased. Barbitone and chloral hydrate are cheaper. Thymol meets with keen competition between makers and dealers. Among the industrial chemicals business is fairly satisfactory, mostly for forward positions. Acetone is unsettled and cheaper. Lead products, such as acetate, red and white lead, are cheaper. Oxalic acid is scarce on the spot and firmer; sodium acetate is easier and zinc products are lower. In coal tar products, commercial toluol and creosote oil are easier. Among the so-called vegetable oils, business generally is dull. Linseed and turpentine oils show a good recovery. Palm oils are also firmer, likewise soya. Cotton oil is easier. Olive oil is again higher on repeated reports of crop shortage.

Higher	Firmer	Easier	Lower
Anise, star, oil (c.i.f.)	Antimony Cassia oil (c.i.f.)	Caraway seed (Dutch)	Acetone
Lemon oil		Citronella oils	Anise, star, oil (spot)
Linseed (Morocco)	Mercury	Clove oil	Barbitone
Linseed oil	Orange oil	Cotton oil	Benzol
Olive oil	Oxalic acid	Crocote oil	Chloral hydrate
Phenazone	Soya oil	Formic acid	Commurin
Resin		Lavender oil	Heliotropine
Turpentine		Menthhol	Peppermint oil
Wood oil (Hankow)	Steadier	Phenacetin	(Jp.)
		Potash chlorate	Pitch
		Soda acetate	Rubber
			Toluol
			Zinc products
	Palm oil		

Cablegram

NEW YORK, January 26.—Business is quiet. Gentian is higher at 8c. per lb. Cartagena ipecacuanha is cheaper at \$3.35 per lb., and copaiba is steady at 49c. per lb.

Crude Drugs, etc.

AGAR AGAR is firm for forward shipment, No. 1 Kobe offering at 3s. 6d. c.i.f., and Yokohama No. 1 at 3s. 1d. c.i.f.

ALOES.—Curaçao in cases is very firm on the spot, and in short supply, while forward prices are higher at about 55s. per cwt. c.i.f. for t.g.

ANTIMONY has shown further strength, chiefly owing to the more critical state of affairs in China, but there has been no eager buying by consumers at the advanced rates established for Chinese regulus on the spot of fully £56 per ton. Very few offers are reported for shipment, and c.i.f. terms range from £54 to £55, the higher figure referring to parcels afloat. English high-grade refined is called £74 10s. to £75.

ARECA is a little cheaper, offering on the spot at 48s. 6d. per cwt., and on c.i.f. terms 41s. to 42s. is quoted.

BELLADONNA ROOT is very firm and scarce, offering at 60s. per cwt. on the spot for 0.45 test. Belladonna leaves are offered at from 72s. to 75s. on the spot.

BLACK HAW bark of root is selling at 1s. 3d. per lb. on the spot, and bark of tree at 9d. to 10d. spot.

CADMIUM.—There has been a steady good demand for Australian metal at 1s. 10d. per lb., and a further large quantity has lately arrived.

CAMPHOR.—Refined is steady, with Japanese 2½-lb. slabs offering at 2s. 8½d. per lb. on the spot, and at 2s. 5d. c.i.f.

CARAWAY SEED.—Dutch is slightly easier, prompt shipment offering at 37s. 6d. per cwt. c.i.f.

CLOVES continue dull, Zanzibar offering at 8½d. to 9d. per lb. on the spot; for October-December shipment 7½d. c.i.f. is quoted, and for January-March shipment sellers quote 7½d. c.i.f., being a trifle easier. The landings in London during the week ended January 22 were 299, and the deliveries 188, leaving a stock of 7,216 bales, against 14,127 bales in 1926, and 14,028 bales in 1925. Up to January 22 the landings of Zanzibar in London have been 599, against 833 in 1925, while the deliveries amount to 986, against 906 last year.

COCHINEAL.—Silver grain is in limited supply at 3s. 6d. per lb.

CORN PRODUCTS, ETC.—Guaranteed waterwhite glucose (corn syrup) is unchanged at 22s. 9d. per cwt. for prompt delivery, ex store, London. Dutch maize starch powder (cornflour) is 15s. 6d. per cwt. on the spot. American, for prompt delivery, is 16s. per cwt. net, ex store, London. Pearl starch is 15s. 6d. ex store, London. Dutch maize starch crystals is 22s. 3d. on the spot, and American for prompt delivery is 19s. 6d. per cwt., ex store, London. Dutch dextrin is 22s. to 22s. 6d. per cwt. for superior. American canary for prompt delivery is 19s. 3d., and white 19s. per cwt., ex store, London. Dutch farina is 17s. 9d. per cwt. on the spot, and 17s. 3d. per cwt. f.o.b. for shipment.

DAMIANA is quoted on the spot at from 11d. to 1s., and on c.i.f. terms 8½d. is wanted.

ERGOT is quiet and on the easy side, with offers at 3s. 3d. per lb. c.i.f., and on the spot 4s. 6d. will readily buy Russian or Polish.

EUONYMUS BARK (Wahoo) is offered at 2s. 9d. on the spot, and at 2s. 6d. c.i.f.

GAMBOGE has been practically cleared since the auction, but a limited quantity of Siam pipe may be obtained at the previous figure while it lasts.

GUM ACACIA is steady, natural Kordofan sorts on the spot offering at 45s., and cleaned at 48s. per cwt. For shipment 38s. 6d. and 40s. 6d. per cwt. c.i.f. is quoted.

HONEY.—After the auction last week a fair business was done at generally easy prices. Good white qualities are still scarce and wanted.

HYDRASTIS is steady at from 21s. to 21s. 6d. per lb. on the spot.

IPECACUANHA.—The sensational advance of last week has been followed by a stream of inquiries on the part of consumers. A fair amount of business has been passing at around 20s. per lb. for Matto Grosso, and most of the small parcels offered are held in second hands. The position in the Matto Grosso district of Brazil remains very obscure, and the disturbances around that State are no doubt affecting the collection of produce. Although we understand from reliable sources that the crop has "completely failed," it is as yet impossible to learn the extent of the stocks that are held by importers at the source of production. The stock of all kinds of ipecacuanha in London warehouses at the end of the year was extremely small, viz., 129 bales, against 186 bales at the corresponding period a year ago. Cartagena has also met with a fair demand, and has risen in sympathy, up to 16s. having been paid for spot parcels, and 16s. 6d. to 17s. 6d. c.i.f. is now asked for shipment for small lots.

JUNIPER BERRIES are offered at 30s. per cwt. on the spot for fair Italian.

LOBELIA HERB is quoted at 4s. 3d. per lb. on the spot.

MAGNESIUM is steady, with a fair demand on the basis of 3s. 9d. to 4s. 3d. per lb. for small ingots, and stocks and powder ranges from 4s. 9d. to 6s. per lb., according to quantity and quality.

MENTHOL is the turn easier, Kobayashi-Suzuki offering at 17s. 6d. per lb. on the spot, and January-March shipment at 16s. 6d. per lb. c.i.f.

MERCURY.—There has not been a great deal doing, but offerings are very light, and quotations have tended upwards, being £17 10s. to £17 15s. per bottle. Offers from producers to this market are limited, but we hear that an order was placed through London for direct shipment from Spain to America for about 500 bottles on the basis of about \$101, delivered New York, duty paid. There is no doubt that the persistent increase in American imports has an important bearing on the market, and this will probably continue for some time. American imports for the whole of last year were reported to be as much as 28,000 bottles. The arrivals in London comprise 15,692 lb. from Italy.

NUX VOMICA still remains very scarce on the spot, and it is difficult to get offers for shipment, as it is between the

seasons. Cochin is offered at about 14s. 9d. c.i.f., and Madras at probably 13s. c.i.f.

OLIVE OIL.—According to reports recently received in London the various Continental crops have been affected by adverse weather conditions, and a considerable shortage will result. Prices are advancing; pharmaceutical quality, which is said to be difficult to obtain, is quoted on the spot up to 7s. 10d. per gallon in barrels. Edible is 9s. to 9s. 6d.

OPIUM remains without change and meets with a small demand at 2s. 3d. per unit for usual Turkey druggists'. Opium valued at £8,075 has been imported from British India, entered by the High Commissioner of India.

CONSTANTINOPLE, January 13.—"During the past fortnight arrivals were as follows:—Druggists', 2,166; 'softs', 162; and Malatia, 341 cases. Stocks amounted to:—Druggists', 858; 'softs', 96; and Malatia, 356 cases. During this period sales included 18 cases druggists' at £263-35, 9 cases 'softs' at £136, and 8 cases Malatia at £231. An event of the highest importance has taken place which comes as a great surprise to our opium market. A manufacturing plant which has been in course of erection for some months past and ostensibly intended for the manufacture of caustic soda has, practically overnight, been transformed into a morphine factory. This new factory has already made a first purchase of 10 cases opium, and it is stated that the manufacture of morphine will begin a few days after the arrival of the chemist in charge of operations. The erection of this factory is due to the initiative of two Japanese brothers, and may be regarded as a progressive step in new Turkey, particularly if expectations are realised that it will have a considerable and regular output. However, it remains to be seen whether this undertaking will be crowned with success. At present it forms the centre of interest of all those connected with the opium trade. Incidentally, the probability of a fall in prices seems to recede further."

RHAPONTICA ROOT.—Chinese is quoted at 1s. per lb. spot.

RHUBARB has been in better demand since the auctions for practically all grades, and prices are 3d. per lb. higher except common round, which is 3d. to 5d. dearer. Shensi is 3s. 6d. to 3s. 9d.; Canton, 2s. 6d.; flat High-dried, 2s. 3d.; and common round High-dried, 2s., with only small stocks available. The latest return showed a stock of only 200 cases, but it is estimated that at least 50 cases have been sold since. Business has been done in rough round High-dried in quantity at 2s. 1d. c.i.f.

RUBBER is again lower in sympathy with the very dull tone that has prevailed in the market for the past few weeks. At one time spot dropped to 1s. 7d., but at the close it was slightly steadier at 1s. 7½d. The trade demand all round is reported to be very slow, especially amongst the home manufacturers, who still look for lower prices. The American buying syndicate has abstained from purchasing over the past fortnight, and the Singapore cables combine to follow the decline in London. Stocks, as anticipated, continue to accumulate, and last week there was a further substantial increase of 1,178 tons in the stocks. The London stock now stands at 53,662 tons. A further large increase is expected to take place next week. Quotations (Wednesday, 5 p.m.): No. 1 standard ribbed smoked sheet, spot and January, 1s. 7½d.; February-March, 1s. 7½d.; April-June, 1s. 7½d. per lb.

SEEDS.—The market shows little change and remains still very quiet, with prices as follows:—**ANISE.**—Spanish is 49s. and Russian 31s. **CANARYSEED.**—Mazagan is 17s. spot, Saffi 16s. 6d., and good bold Spanish 30s., and small 25s. 6d. **CUMIN SEED.**—Maltese is 30s. to 32s. 6d. spot, and Morocco 29s. spot. **CORIANDER SEED** is still firm at 24s. 6d. on the spot. **FENUGREEK SEED** is firm at 15s. spot. **DILL SEED** is 21s. 6d. per cwt. **HEMPSEED.**—Manchurian is 14s. 6d. **LINSEED.**—Mazagan is firm at 21s. spot, and difficult to get forward, offers being scarce on the other side. **MUSTARD SEED.**—English is 32s. per cwt.

SENEGA remains firm, with small sales at 3s. 2d. per lb. on the spot, which price is also quoted on c.i.f. terms.

SHELLAC is slightly easier on the week, usual standard TN orange offering at 192s. 6d. per cwt.; fine orange is 220s. to 300s.; pure button, 230s.; AC cakey, 197s. 6d. to 202s. 6d. To arrive, TN for January-February shipment has been sold at 182s. 6d., and February-March at 182s. to 185s. c.i.f. Sales for delivery include TN for March at 190s. to 187s. to 188s., and May at 194s. to 187s. 6d. to 191s. per cwt.

Essential Oils

THERE is a moderate business passing this week. Higher rates are quoted for forward shipment of star anise. West Indian lime, cassia and orange oil are dearer. An easier tendency is noted in French lavender and clove oil. Star anise is cheaper on the spot following fair arrivals. Japanese peppermint is lower.

ANISE (STAR).—"Red Ship" is rather easier on the spot, with sellers at 2s. 11d. per lb., following fair arrivals. Forward prices are dearer, with leads at 2s. 5d. to 2s. 6d. c.i.f. Fair sales have been made at 2s. 2½d. to

2s. 3½d. c.i.f. in tins and cases; drums have been sold at 2s. 2½d. c.i.f.

BERGAMOT.—Actual spot supplies are practically non-existent, the nominal value being 30s. per lb., but shipments in course of landing, the first of the new crop, are being offered at 27s. to 28s. for 37 to 38 l.a. For shipment, 24s. 3d. to 26s. 3d. c.i.f. is about the value as to brands.

CASSIA on the spot is firm at 7s. 6d. per lb. for 80 to 85 c.a. For shipment around 6s. 9d. c.i.f. has been quoted.

CEDARWOOD.—American is firmer at 1s. 6d. per lb. in drums, and 1s. 5d. c.i.f.

CITRONELLA.—Ceylon on the spot is easier at 1s. 5d. per lb., and for shipment at 1s. 4d. c.i.f. Java is also easier for shipment at 1s. 10d. c.i.f. Spot is 2s.

CLOVE.—In view of the fair shipments afloat of new crop cloves, concessions are readily made to immediate purchasers of near shipment, and distillers who have taken advantage of these offers have been selling in bulk quantities freely for forward delivery at comparatively cheap rates. On the spot, distillers quote from 5s. 6d. to 5s. 9d. per lb. for fair quantities. There is at present keen competition for business.

EUCALYPTUS.—There is a good inquiry for the higher percentages, which are difficult to find on the spot. For 70 to 75 cineol 1s. 9d. per lb. is about the value.

GERANIUM oils continue in slow demand. Bourbon is offered to come forward at 10s. 3d. to 10s. 6d. per lb. c.i.f. On the spot, there are sellers at 10s. 9d. to 11s. Algerian is quoted to come forward at the equivalent of about 11s. c.i.f., but on the spot business would be accepted in some directions at about 10s. 6d. to 11s.

LAVENDER.—There is an easier tendency in forward offers of French 38 to 40 per cent., due to the slow demand, a decline of about 30 fr. per kilo being noted in some directions. On the spot the range varies considerably, according to seller. Sales have been reported recently at 19s. 6d. per lb., but probably 18s. 6d. would now be accepted.

LEMON.—Forward prices have been firm during the week at around 7s. 6d. to 7s. 7d. per lb. c.i.f. On Wednesday cables were received advancing the price for some brands to 8s. and over. Fair sales have been made on the spot at 7s. 6d., at which further supplies are limited, and probably 7½d. to 8s. represents the value. Fair sales of Californian lemon have been made at 4s. 8d. on the spot.

PALERMO, January 20.—The delay this year in pressings led to a firm position when supplies were needed for January delivery, and bullish operators were favoured by scarcity of spot oil. Prices have consequently been much firmer during the last two weeks. Consumers' orders have so far been small, buyers abroad following a hand-to-mouth policy. As the pressing season is still in its initial stages, the future of the article depends on the demand from abroad.

LEMONGRASS.—Cochin on the spot is steady at 3s. 7d. per lb. and 3s. 6d. c.i.f.

LIME.—West Indian distilled has advanced, and sales are reported at from 21s. to 22s. 6d. per lb., up to 25s. being now wanted. Hand-pressed is obtainable at 37s. 6d. in caso lots.

ORANGE.—Higher prices are being quoted for Sicilian sweet to come forward at from 8s. 4d. to 8s. 9d. per lb. c.i.f. as to brand, the market being probably influenced by the scarcity of Californian, which will not be relieved for a month or two. On the spot, 8s. 6d. to 9s. is quoted, and for Californian 7s. 3d. to 7s. 6d. West Indian is slow of sale, and spot offers have been made at the easier rate of 7s. 9d. to 44s. per lb. as to holder.

PATCHOULI.—Penang is firm on the spot at from 42s. 6d. to 44s. per lb. as to holder.

PEPPERMINT.—At the present time it is difficult to interest consumers in American oil and the undertone continues easy, prompt shipment offering at 18s. 6d. per lb. c.i.f. On the spot there are sellers at from 19s. 6d. to 20s. Japanese dementholised is cheaper, Kobayashi-Suzuki offering at 7s. 6d. per lb. on the spot. In forward positions, October-December shipment is offered at 6s. 9d. c.i.f., and January-March, which last week sold down to 6s. 10d. c.i.f., with buyers at 7s. 1½d.; sellers at 7s. 3d. c.i.f.

PEITIGRAIN.—New arrivals of Paraguayan, now afloat, are offered at 7s. 3d. per lb., landed terms.

SASSAFRAS.—Genuine American is quoted on the spot at from 3s. 9d. to 3s. 10d. per lb. For shipment offers are made at 3s. 4d. c.i.f.

VETIVER.—Bourbon is offered at 38s. per lb. c.i.f. for parcels near at hand. On the spot, there are sellers at 40s.

WORMSEED (CHENOPODIUM).—American is quoted at 13s. 6d. per lb. c.i.f., and on the spot at from 14s. to 14s. 6d.

Pharmaceutical Chemicals, etc.

AFTER a sharp advance last week bromides have settled down at slightly easier rates than then recorded. Aspirin is tending to harden. Business in those products for which exemption orders from liability to Key Industry duty are expected, is suspended.

ACETANILIDE remains quiet at the unchanged price of about 1s. 7½d. per lb. for B.P. crystals and powder.

AMIDOPYRIN is steady but very quiet at from 11s. 9d. per lb.; forward prices uncertain.

ASPIRIN.—There has been a brisk business, and prices are very steady at 2s. 4d. to 2s. 5d. per lb. for British. Some brands of Continental have advanced with about 2s. 6d. the bottom price, and supplies are very scarce. Some dealers who are offering at very competitive prices find business difficult, probably on account of the fact that the bulk of the trade passing is on contract with the makers.

BARBITONE is quiet and easier, with the spot price about 8s. 3d. per lb.; uncertain forward.

BENZALDEHYDE (0.03) shows no change at 1s. 11d. per lb. for quantities in carboys.

BENZOIC ACID (B.P.) continues to receive good inquiry, with prices very steady: British, 2s. 3d. to 2s. 4d. per lb., ex works. Continental, p.f.f.c., 3s. 6d. spot.

BENZONAPHTHOL shows no change on a quiet market at 3s. 3d. for quantities.

BROMIDES.—Spot prices have settled down after the upward movement reported last week. Business has been on a fair scale. Ammonium, 2s. 1½d.; potassium, B.P. crystals and granular, 1s. 9d. to 1s. 9½d. per lb.; sodium, B.P., 1s. 11d. per lb. British makers' prices for ammonium from 2s. 2d., and for sodium from about 2s. per lb.

CALCIUM LACTATE is steady, but in slow demand; quantities are slightly under the quoted rate of 1s. 3d. per lb.

CHLORAL HYDRATE.—Duty-paid crystals are easier, with cwt. lots at 3s. 2d. per lb.; business quiet.

CITRIC ACID (B.P. crystals) is still slack, with prices about 1s. 3d. per lb., less 5 per cent., and a shade cheaper for large quantities.

COUMARIN is cheaper, 100 per cent. offering at 10s. 6d. per lb.

CREOSOTE (B.P.).—Very little business is recorded at 1s. 9d. per lb. for quantities in demijohns.

CREOSOTE CARBONATE shows no alteration at 6s. per lb. spot; market slack.

GUAIACOL CARBONATE remains quiet, with the spot price at about 6s. 9d. per lb.

HELIOTROPINE crystals offer at the cheaper rate of 5s. per lb.

HEXAMINE is about level on the week, with a fair business passing; quoted from 2s. 4d. to 2s. 5½d. per lb., according to quantity and grade.

HYDROQUINONE is dull, with the spot value about 3s. 11½d. per lb.; forward prices are uncertain.

LACTIC ACID.—B.P. is offered at about 2s. 2d. per lb., in demijohns; market quiet. There has been a good inquiry for technical, 50 per cent. by weight, with dealers quoting about £41 per ton.

MENTHOL (SYNTHETIC).—Makers quote 12s. to 13s. per lb.

METHYL SALICYLATE (B.P.).—Quite an active demand is reported at from 1s. 6d. to 1s. 6½d. per lb., according to quantity.

METHYL SULPHONAL remains dull, with spot values about 15s. 3d. per lb.

MILK SUGAR.—Continental and spot prices are about the same, dealers quoting from 60s. to 62s. 6d. per cwt., ex wharf.

PARAFORMALDEHYDE (100 per cent. powder) is steady, but in small inquiry; quantities from 1s. 9d. per lb.

PARALDEHYDE is steady at 1s. 1½d. to 1s. 3d. per lb., according to quantity and packing.

PHENACETIN is steady on spot, but business is more or less held up pending the issue of Exemption Orders: spot, 3s. 9d. per lb., in cwt. lots; forward prices uncertain.

PHENAZONE is rather dearer on spot as quoted at 6s. per lb.; forward prices are uncertain.

PHENOLPHTHALEIN continues steady, with prices ranging from 6s. 2d. to 6s. 3d. per lb.

POTASSIUM PERMANGANATE (B.P.) is not in much request; dealers quote quantities at about 6d. per lb., in drums.

POTASSIUM SULPHOGUAIACOLATE is irregular in the region of about 5s. per lb.

RESORCIN is quoted at about 4s. 3d. per lb., for quantities, but is easy at this figure.

SALICYLIC ACID (B.P.) has been in fair request, with prices barely maintained at 1s. 4d. to 1s. 4½d. per lb., according to quantity.

SALOL is dull, with the spot price about 3s. to 3s. 3d. per lb.

SODIUM BENZOATE (B.P.) continues bright, with prices maintained from 1s. 8d. per lb. for good quality.

SODIUM DIETHYLBARBITURATE is very slack; quoted from 9s. per lb.

SODIUM SALICYLATE (B.P.).—Prices continue rather irregular, and quoted rates are not obtained for any quantity: crystals, 1s. 10d. to 1s. 11d.; powder, about 1s. 10d. to 1s. 11d. per lb.

SULPHONAL is dull and easy as quoted on spot at 10s. per lb.; forward position is uncertain.

TANNIC ACID.—B.P. *leviss* is steady as quoted at 2s. 6d. per lb. for quantities in kegs and 2s. 10d. for small lots.

TARTARIC ACID (B.P. crystals) is still quiet, and prices remain cheap, but it would not be surprising to see an upward movement in the near future, and more business coming on the market. Continental to come forward in quantities is 11½d. to 11½d. per lb., less 5 per cent.

TERPIN HYDRATE remains quiet: dealers quote at about 1s. 6d. per lb.

TERPINEOL.—The average price is about 1s. 6d. per lb.

THYMOL.—There has been keen competition between makers and dealers, and the average price for a fair quantity would be about 11s. per lb., and a little more for small lots.

VANILLIN is inclined to be steadier as quoted at about 17s. 6d. to 18s. per lb.

Industrial Chemicals, etc.

London, January 26.

ONE or two minor alterations in prices are recorded, but generally the market continues steady. Business has been fairly satisfactory, but is mostly for forward positions under contract. Supplies of spot oxalic acid have run out. Acetone is cheaper.

ACETIC ACID is steady, with average business being done: 80 per cent. technical and 80 per cent. pure, £37 per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £66, in glass demijohns; glacial, in barrels, £56 per ton, ex wharf.

ACETONE is again cheaper, with the quotation down to about £58 per ton, in drums, ex wharf. Market is unsettled, with competition keen.

AMMONIA (ANHYDROUS).—Dealers report good inquiry for forward delivery, with their spot quotation for 99.95 per cent. in loaned drums, carriage paid, at 1s. to 1s. 1d. per lb., and cheaper for contracts.

AMMONIUM CHLORIDE is steady but quiet at £22 per ton, ex store, in casks, and cheaper for contracts.

ARSENIC has kept very firm, and Cornish agents have no difficulty in disposing all they have on sale on the basis of at least £17, f.o.r. mines, for 99 per cent. Japanese is quoted at £17 10s., c.i.f. U.K.

BARIUM CHLORIDE is slow at £9 5s. per ton, in casks.

BLEACHING POWDER is steady, with the makers' price commanding the market. To home consumers, £8 per ton, carriage paid, for four tons or more.

COPPER SULPHATE.—Export business is slow and makers are asking £24 to £24 5s. for casks, f.o.b., less 5 per cent.

CREAM OF TARTAR continues steady, although rather quiet: Continental quoted by dealers from 80s. per cwt., less 2½ per cent., for quantities to come forward; spot values, 81s. to 82s.

EPSOM SALT remains quiet on spot, with dealers offering commercial at 25 per ton, in single bags; cheaper for quantities to arrive.

FORMALDEHYDE is very steady and business has improved of late: 40 per cent. by volume, £40 5s. per ton, ex wharf.

FORMIC ACID is slack and prices are easy at about £46 per ton for 85 per cent. in carboys, ex wharf.

GLAUBER'S SALT shows no change, with business quiet; spot parcels of commercial quality in single bags offered at £3 12s. 6d. per ton.

LEAD PRODUCTS.—Still lower prices quoted, with the market very slack. Owing to lack of business, prices quoted are more or less nominal. Lead acetate, brown, £41 10s.; white, £44 per ton, spot; red lead, imported, £32 15s., c.i.f. London; white lead, dry, £32 10s.; ground in oil, £34, c.i.f.

LITHOPONE is steady and business has been on a good scale, but mostly on contracts over the year: spot, 30 per cent. Continental red seal, £20 per ton, in casks, ex store.

OXALIC ACID is very scarce on spot and the price is now firm at 4d. per lb. Importers are not landing supplies and consumers are holding off until some decision is published on the application for the exemption from liability to key industry duty. The Board of Trade have had this matter under consideration since last August.

POTASH CAUSTIC.—Convention rates are unchanged: spot, 88 to 92 per cent. solid, £29 per ton, in drums, ex store; for 15 tons or more to arrive, £27 5s. per ton, c.i.f. U.K.

POTASSIUM CARBONATE shows no change on quotation, but business remains quiet: 90 to 92 per cent., £24 10s.; 96 to 98 per cent., £26 per ton, in casks, ex store.

POTASSIUM CHLORATE is offered at the slightly cheaper price of 3½d. for large quantities to come forward; spot, about 3½d. per lb.

POTASSIUM PERMANGANATE.—Commercial quality is not moving in any quantity at the moment: dealers are cutting prices at a shade under 5d. per lb., in drums, for large orders.

POTASSIUM PRUSSATE is very steady at 7½d. per lb., spot and forward, in casks.

SAL AMMONIAC is unchanged, with a fair amount of business being done: dog-tooth crystals, £31; medium, £30; fine white crystals, £19 per ton, in casks.

SODIUM ACETATE is a shado easier, spot offering at about £19 10s. per ton, in casks.

SODIUM CHLORATE is at from 3d. to 3½d. per lb.

SODIUM HYPOSULPHITE is steady, with a little inquiry. Dealers quote pea crystals in one-cwt. kegs at £15 7s. 6d. per ton, ex wharf; commercial lump at £9 per ton, in casks. British makers' price for pea crystals to home consumers on contract, £15 5s. per ton, carriage paid to buyer's station.

SODIUM NITRATE remains slack in London: 95 per cent., £12 15s.; refined, 96 per cent., £13 7s. 6d. per ton, f.o.r. docks, London.

SODIUM NITRITE is dull, with 100 per cent. basis offered at docks, London, at £20 per ton, and 21s. per cwt.

SODIUM PRUSSATE is well maintained on a bright market at 4½d. per lb., in casks; business is good.

SODIUM SULPHIDE is at recent higher rates, and Continental prices are still dear: 60 to 62 per cent., £11 7s. 6d.; broken, £12 7s. 6d. per ton, in drums, ex wharf.

COAL TAR PRODUCTS, ETC.—Commercial toluol and creosote oil are easier this week. Pitch shows a slight decline. Business has been slow, and the general tone is not steady. ANILINE OIL is in limited supply at about 9½d. per lb., in loaded drums, carriage paid. ANILINE SALT is quoted nominally at 9½d. per lb., packages extra, carriage paid. BETANAPHTHOL is at the nominal figure of 1s. 0½d. per lb., carriage paid. TOLUOL is cheaper, with commercial 90's offered down to 1s. 9d. per gallon, ex works; pure, about 2s. 4d. XYLOL remains dull and unsteady; pure, about 3s. 3d.; commercial, about 2s. 4d. per gallon, ex works.

CARBOLIC ACID CRYSTALS.—The position, broadly speaking, is unchanged; second-hand material is now very scarce. A fair amount of business has passed and the price of 6½d. per lb. f.o.b. for fresh material is well maintained. CRESYLIC ACID continues firm on an active market: 97 to 99 per cent., American specification, 2s. 4d. to 2s. 4½d. per gallon, f.o.b., drums extra. CREOSOTE OIL is easier and rather quieter: quoted ex works at about 8d., and f.o.b. at 8½d. per gallon, in bulk quantities. NAPHTHALENE is steady but distinctly quiet: Continental offered at £14 10s. per ton, f.o.b., for flakes and balls. Pure METHYL ALCOHOL is steady but rather slack: one-ton lots at £47, in drums, ex wharf. PYRIDINE is neglected: quoted nominally at 10s. 6d. per gallon, f.o.b. PITCH has slackened off and prices are slightly easier at about 120s. per ton, f.o.b. East Coast.

Fixed Oils, etc.

AMERICAN turpentine and linseed oil show good recovery on the week, but the former closes easy. Palm oils are also brighter at slightly better rates. Other products remain dull. ACID OILS remain dull, and prices are about the same: coconut-palm kernel, 36s. 6d.; groundnut, 30s.; soya, 24s. spot. CASTOR is unchanged and slack: pharmaceutical, 51s. 6d.; first pressings, 46s. 6d.; second pressings, 44s. 6d. spot, in barrels in not less than one-ton lots. COCONUT.—Business is still poor: deodorised, spot, 48s. 6d.; Ceylon, 43s. c.i.f.; Cochín, 45s. e.i.f. COTTON is easier with the market dull: deodorised, 42s. 6d.; common edible, 41s.; soapmaking, 38s. 6d.; crude, 34s. 3d. spot. GROUNDNUT is quiet and prices are unchanged: deodorised, spot, 50s. 6d.; crude Oriental, 44s. e.i.f. PALM KERNEL is dull and prices unsteady: deodorised, 47s. 3d.; crude, 42s. spot. PALM is steadier, with a slight recovery in prices; business moderately good: Lagos, 35s. 9d.; softs, 35s. 4½d.; mediums, 35s. 3d.; hards, 35s. 6d.; bleached, 38s. 6d. spot. RAPE is unchanged: refined, barrels, 50s.; crude, about 48s. spot. SOYA is firmer and tends to advance: deodorised, in barrels, 42s.; crude, 38s. 6d. spot. LINSEED (raw, naked).—Prices for all positions show a good improvement, and the market is now firm: on spot, 32s. 3d.; January-April, 31s. 1½d.; May-August, 31s. 1½d.; September-December, 31s. 9d. Boiled oil, spot, 33s. 9d. Hull, on spot, 31s. 9d.; January-April, 31s. 7½d.; May-August, 31s. 7½d.; September-December, 31s. 7½d. TURPENTINE.—There has been a steady improvement with a better trade demand, while it is asserted that the bulk of the stocks thrown on the market recently due to the failure reported has now been liquidated. Spot delivery continues at a discount, but May-June delivery has been raised to a premium of about 2s. Spot closes easy at 53s.; February-April, 53s. 9d.; May-June, 55s.; and July-December, 53s. 3d. per cwt. Deliveries here for last week amounted to 1,853 barrels, making a total for the year so far of 6,020 barrels. The stocks were returned at 58,435 barrels, comparing with 52,450 barrels a year previous, including landings and affloats; the visible supply amounted to 67,946 barrels, comparing with 53,330 barrels a year ago. RESIN.—There has been an improved demand, and prices

advanced sharply for all grades, particularly low and medium. C.i.f. for shipment from America are as follows:—B to F, 27s.; G, 27s. 9d.; H/I, 28s. 10½d.; K/M, 31s.; W.G. 34s., and W.W. 38s. per cwt. Spot terms are 9d. above these figures. WOOD.—Hankow in barrels on spot is dearer, with the price up to 81s. per cwt.

Bourbon Geranium Oil

WILSON & MANSFIELD, 15 Philpot Lane, London, E.C.3, have recently issued a report on Bourbon geranium oil, in which they state: The franc price has now fallen to its lowest level for several years. The position of the French exchange, however, causes sterling prices to be somewhat higher than those at which business was done last summer, when the franc was over 200 to the £. Our shipper in Réunion states that the present low prices may result in reduced production. Shipments from Réunion up to October 30, 1926, totalled 163,211 kilos, and it was estimated that there was in the island a stock of 10,000 to 15,000 kilos, or a total for the year of about 175,000 to 180,000 kilos. Allowing for shipments during November and December at only half the year's monthly average the total production appears to have been shipped. Production for 1927 has already been estimated at not less than 20 per cent. below that of last year, which makes the estimated crop for the year 140,000 to 144,000 kilos, or nearly 20,000 kilos less than was actually shipped during the first ten months of last year.

Cinchona and Quinine in 1926

MR. W. BREDT, in the course of his annual report on the bark and quinine markets last year, states that the outward monotony which had distinguished quinine since June 1922 was broken in April 1926, when the Convention reduced the official price of sulphate from 2s. 3d. to 1s. 8d. per oz. The next event, probably not unconnected with the first, was the entrance of the Hoshi (Japanese) factory into the Convention. This took place in November, after the Swiss outsiders, the Hoffmann Chemical Works of Bale, had been absorbed into the ring some months before. The Koninklijke Chininefabriek of Amsterdam, with a small output, is now the only independent quinine factory left. The omens are for a renewal of the Cinchona Agreement after its expiration next year. A movement to constitute an Association under the name of the United Cinchona Producers, and distinctly independent of the quinine interests, found very little sincere support and came to nothing. To judge from the Java cinchona and quinine exports and the movement of quinine from other centres, the consumption of quinine is well maintained. As a prominent sign of the times remains the endeavour on the part of various countries to attain a certain independence concerning their requirements of quinine. The Indian Government has assumed full control of the Indian production of cinchona, and its especial care is the co-ordination of the local governments' planting programmes with the Government of India's own. No cinchona product is to be procured from beyond the borders of the Empire unless rendered unavoidable by special circumstances. The Department interesting itself in health matters in Russia talks of growing cinchona in the favourable soil and climate of the Black Sea coast. France is considering how much of its annual requirement of 750 tons of cinchona might be produced in her African colonies, large tracts in which are regarded as eminently adapted for cinchona cultivation. Italy, whose large cinchona estates in Java are approaching the harvesting stage, will shortly be independent of foreign quinine, although not on the strength of home-grown bark. The imports of bark into the United Kingdom have been insignificant (apart from the 8,000 bales, approximately, consigned to British quinine makers from Java). S. Thomé sent a few hundred bales, part of which sold at prices which cannot have given much encouragement (6d. to 8d.); some high testing S. Thomé quills of good appearance, on the other hand, realised up to 1s. per lb. Bolivia restricted its exports in view of the stocks left over at the end of last year; however, a fair demand set in in the autumn and most of the Calisaya bark was cleared, the best lots fetching as much as 1s. 2½d. per lb. As a manufacturing bark these Calisayas would not be worth more than about 8½d. to-day, taking 5 per cent. S/Q as a basis. Several parcels of Peru bark (Loxa and Huanoco) have come on the market and, for the most part, found buyers among druggists at 9d. to 1s. These barks contain very little or no quinine and the total alkaloids range from 2½ to 6½ per cent. Stocks of South American barks are now fairly low, but with a quiet demand. Hamburg again received numerous shipments of Calisaya and other South American barks during the year; comparatively few lots found their way there before the war, the distributing market then being London.



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Parliamentary Representation

SIR,—The proposal to promote the candidature of unspecified individual pharmacists for Parliament as a means to getting the interests of pharmacy represented in the House of Commons does not appeal to me. It reminds me of the mother who thought of bringing up one of her sons as a chemist so that, if he was successful in qualifying, he could make up the family medicines. There are able professional politicians in every Parliament ready to give skilled service in Parliament in consideration of an adequate retainer. A fund of £10,000 administered discreetly in that direction should give pharmacy a sufficient voice in the nation's counsels. The proposal which pharmacists are now being asked to support with their subscriptions may very well leave the craft with its Parliamentary Fund all spent and nobody in Parliament to speak for it.—Yours, etc.,

HAROLD E. MATTHEWS.

Clifton, Bristol.

[As we understand the Parliamentary Scheme of the Pharmaceutical Society, it does not prevent contributions to "professional politicians." So far as we are aware, there is not in the present Parliament a single member with sufficient knowledge of the drug-trade whose services could be utilised to the advantage of chemists. That is why the election of one, two or three pharmacists is urgently needed.—EDITOR.]

Drug Tariff Review

SIR,—I wonder if other chemist readers are experiencing the gradual establishment of the 12- and 16-oz. mixtures prescribed by local medical men? We have tolerated a big reduction in fees by the advent of the above, as shown from my own figures. During December I dispensed seventy 12-oz. and fifteen 16-oz. mixtures. I do not think it is fair either to the patient or the chemist, considering the instability of some of the mixtures. Perhaps an appeal to the Insurance Committee would help.

Yours faithfully,

H. A. F. (22/1).

SIR,—Having been present at a local meeting at which the circular letter from the York and District Chemists' Association was under discussion, it struck me that although all the speakers agreed that the present rate of payment was not adequate and were in favour of the York proposals, yet there was not one who did more than discuss the terms in the abstract. The difficulty is to arrive at figures which represent the real work done. Some time ago various correspondents gave details of their Insurance turnover in your columns; some of them proved by their figures that the work was done at a loss, and others claimed to make a profit, and yet the scale of pay is the same in each case. It is all very well for actuaries to sit in an office with tariff lists, wholesale prices, and a pile of prescriptions in front of them, and to work out a scale of pay based on these figures; but such a scale does not pay for the work done, and makes no allowance for many details which cost time and money behind the counter and yet are never shown on paper. And there is the vexed question of establishment charges; how is a chemist to arrive at the exact figure to charge against his panel work? The risk involved, the worry of inspectors and regulations, the time taken to serve the customers and the capital locked up are all considerably greater than in any other part of the business. But the difficulty we have is to put this greater liability into figures; until we are able to do this we cannot hope to make any impression, and although I have tried many times myself to do so I cannot see at present how one is to separate all the expenses of a retail business so as to prepare a true balance sheet for the panel work only. You say that chemists generally accepted certain prin-

ciples as a basis of remuneration; true, they did so, but much in the same way as they have had to accept many other things; this is not to say that chemists generally approved of that basis.—Faithfully yours,
EIGHTPENCE (24/1).

SIR,—Now the time is coming for Insurance dispensing fees to be again discussed, I hope our leaders will have embodied in any fresh agreement that the fee applies to mixtures up to and including 8 oz., with a corresponding increase for larger bottles. At the present time I should think we are dispensing fully 25 per cent. of 12-oz. mixtures, and 16-oz. are now becoming very frequent; in fact, there does not appear to be any reason why corbyn quarts should not be popular by next winter at the present rate of progression. It does not require much intelligence, of course, to see how our fees are being reduced, to say nothing of the inconvenience to customers of so frequently having to inform them that their bottle is too small. I might also add my opinion that our present fee is quite inadequate, as, in the first instance, it will not pay for labour, so must be wrong in principle. I am of opinion that there has been too much mathematics and too little business experience used in arriving at a fair remuneration for our services. The doctors appear to be satisfied with their fees, and the dentists, I know, are now well satisfied. Why should the chemist, with all his red tape and responsibilities, not be paid something like a reasonable fee for his work? If I dared intrude further on your space, I could give many arguments to show that Insurance pay is inadequate.—Yours faithfully,

Macclesfield.

J. HODKINSON.

Panel Chemists' Difficulties

SIR,—In your report of a recent meeting of the Warwickshire Pharmaceutical Committee (*C. & D.*, January 22, p. 101) there are two items which are an example of the little troubles which are constantly cropping up in one's daily work, and give rise to constant annoyance. The first is the case of adhesive plaster when ordered in strip. It is not unusual for a doctor to order adhesive plaster, say, 1 in. wide by 4 ft.; the adhesive plaster on the tariff list is directed to be supplied spread on brown holland, and this comes in one-yard rolls. To fulfil the order is therefore impossible, as even if one cut a one-inch strip from a yard roll it would be necessary to supply an odd foot to make up the four feet, to say nothing of the waste incurred. Therefore one generally supplies a reel of rubber adhesive plaster and marks the script accordingly. I note that in this case the "technical error" was passed over, but it may not always be so. The second item deals with cod-liver oil supplied in wet bottles. We are not told whether the bottles were supplied by the chemist or the customer; if by the former, it is doubtful whether a bottle of the correct size would be ready washed and dried at the moment, and it is practically certain that a panel customer would not consent to wait whilst this was being done; and if by the latter, he would insist on having it filled while he waited, whether it was wet or not. A man will bring a 10-oz. bottle for a 12-oz. mixture and absolutely refuse to pay a deposit for the correct one; what is the chemist to do, refuse to dispense it or to give him 10 oz., with the risk of being charged with supplying short measure? Then there is the customer who brings a bottle, which has had liquid paraffin in it, with a script for a mixture, and on being shown the dregs of the oil informs one that it will not matter and he is not going to pay for another one; in this case I suppose the chemist is expected to clean the bottle in addition to dispensing the medicine for his fivepenny fee.—Yours, etc.,

EMPLASTRUM (22/1).

Appreciations

It gives me great pleasure to renew my subscription for the *C. & D.*, which is read from cover to cover.—*J. S. A.* (7/1).

I have now been a reader of the *C. & D.* since 1884, and although not now in business, find I cannot get on without it. I simply must have it for old time's sake.—*J. M.* (7/1).

Legal Queries

H. N. L. (18/1).—A medicated soap with the virtues you mention would require to be stamped.

H. W. P. (11/1).—There are no laws in Ireland corresponding to the Medicine Stamp Acts in force in Great Britain.

M. S. E. (9/1).—Sheep dips containing arsenic, when sold, must be signed for or supplied by means of the provision of a signed order for agricultural purposes, as mentioned in *The Chemist and Druggist Diary*, 1927.

W. E. M. (18/1) has taken his son as an indentured apprentice. Must the lad be insured under the Unemployment Insurance scheme seeing that he is "bound" and cannot be out of work? [If the lad is paid wages he must be insured.]

J. C. A. (11/1).—The regulation forbidding medical men prescribing "dangerous" drugs for themselves was revoked on May 16, 1923, a notice to that effect being inserted in the "London Gazette," May 18. See also *C. & D.*, May 26, 1923, p. 719.

M. H. (12/1).—You are liable to pay an assistant's wages in full while he is away ill, and also for a month if you give him notice to leave. The fact that you paid him weekly does not affect the length of notice, as the custom of the drug trade is a month's notice.

D. D. A. (3/1).—The dilution of tr. opii more than 1 in 5 excludes it from the Dangerous Drugs Act and Regulations. The inspector has no power or authority to insist upon records of the sale of such dilutions. It may be sold to anyone subject to the chemist's discretion.

Colour (8/1).—The vegetable colouring matters which are definitely prohibited from use in food by the Public Health (Preservatives, etc., in Food) Regulations, 1925, are gamboge, picric acid, victoria yellow, Manchester yellow, aurantia and aurine. See *C. & D. Diary*, 1927, p. 263.

M. B. (20/1).—The ointment of which you supply a draft bill would require to be stamped because it is recommended for ailments. If you claim proprietary rights in the title the publication of the formula on the label or a reference to a standard work where the formula is disclosed would not get over the necessity of stamping it.

N. D. M. (15/1).—In the case of packed proprietaries, where the container is in an outer wrapper, it is usually considered as being a reasonable interpretation of the law to place the vendor's name and address on the wrapper, but where it is feasible, without destroying the outward characteristics of the article, the name and address should be attached to the container.

A. C. B. (15/1).—The use of annatto as a food colouring is not prohibited by the new regulations governing the use of preservatives and colours in food. (See *C. & D. Diary*, 1927, p. 263.) Milk may not be sold coloured, and probably the same would apply to bread, but so far as we are aware the question has not yet been raised as to whether bread tinted by annatto is to the prejudice of the purchaser.

D. W. C. (20/1).—The title of the cough mixture to which you refer is in such common use that the Registrar of Trade Marks would not accept it for registration. You could, however, incorporate the words in a distinctive design and apply for registration, but even then you would have to disclaim the sole right to the words. The method and cost of registration of trade-marks are given in the *C. & D. Diary*, 1926, p. 309.

W. A. G. (8/1).—The subscription to *THE CHEMIST AND DRUGGIST* should be allowed as business expenses by the Inland Revenue authorities, for the reason that it enables a chemist to carry on business in a more efficient manner—i.e., enables him to earn the income upon which tax is levied. The proprietors of *THE CHEMIST AND DRUGGIST* pay income-tax on their profits. We think the inspector is referring to societies which do not pay income-tax, but yet publish journals.

B. B. & Co. (10/1).—The Dangerous Drugs Act is explicit as to the drugs affected, and covers diamorphine and its salts, the limit being $\frac{1}{10}$ per cent. of diamorphine, consequently 0.1 per cent. of the salt must be outside the Act and Regulations made under the Act. The opinion quoted may be held, but the above is the law as it stands at the present date. What it will be on the promulgation of the 1925 Act no one knows. The statement on the *C. & D. Poisons Card* No. 4 is correct.

G. F. R. (18/1).—A preparation containing tr. opii and tr. chlorof. et morph. must have shown on the label the amount of each scheduled poison contained therein, with the word "poison" and a reference to the particular British Pharmacopœia in which the formula of the tinctures is given. It would not be a declaration within the meaning of the Labelling Order to make a vague statement such as "under 0.2 per cent. of morphine." If you prefer you can eliminate the names of the tinctures and declare the morphine and other scheduled poisons.

C. H. M. (13/1).—The word "pharmacy" can be used as a descriptive name for business premises by persons not qualified to carry on a chemist's business. The point, however, has not been settled by the Courts as to how far the use of the place name "pharmacy" leads to the belief that the "business of a chemist and druggist," which can only be carried on by qualified persons or corporations, is being carried on. The safest plan is to form the business into a limited company as laid down by the Poisons and Pharmacy Act, 1908, Section 3 (4).

W. G. B. (15/1).—An unqualified person cannot carry on the "business of a chemist and druggist" by employing a qualified chemist. The Poisons and Pharmacy Act, 1908, Sec. 3 (4) provides a method by which a limited company can carry on a chemist's business. Unqualified persons may be directors or shareholders of such a company, but the *bona fide* manager must be a qualified person, or if the company uses the title "chemist" in its name, one of the directors must be qualified under the Pharmacy Act. The details are given in the *C. & D. Diary*, 1925, p. 232.

A. S. E. (12/1).—We were doubtful whether brandy or rum used in a pharmaceutical preparation would be included in the articles upon which a spirit rebate is paid. We advise, however, that application should be made for the rebate on the official form, which can be obtained from the local Customs and Excise officer. A claim is usually entertained only where it is made within three months of the time when the spirit was used. The formula of the preparation ought to be set out on the back of the application form, as the question of allowance depends a good deal on the composition of the article.

S. P. (18/1).—A and B were joint owners and shared the profits of a business. B died, leaving all his property to his widow. Does the widow actually take B's place as a partner in the firm, or is A justified in paying her an agreed sum for B's share? [In the absence of special provisions in the deed of partnership, the partnership was dissolved automatically by B's death, and his widow does not become a partner. She is, however, entitled to be paid B's share of the partnership assets, for which purpose a sale might be necessary. The best course is for A and the widow to agree what sum represents the value of B's share, and for A to pay that amount.]

J. M. W. (12/1).—(1) If a Part I poison is asked for in any form and it is actually within that Part, the usual method must be followed, but 3ij. tr. nucis vom. in 3vj. of water is not within Part I of the Schedule since it contains less than 0.2 per cent. of strychnine. (2) Alonal tablets are stated to be a mixture of a barbiturate and another medicament, so that they come within Part II of the Schedule under the admixture clause. (3) Syr. Easton need not be signed for, as it is in Part II of the Schedule with 0.057 per cent. of strychnine. (4) Ung. hyd. ammon. and ung. ac. carbol. should be labelled with the name and B.P. and the word "poison." (5) The amount of hyoscyamus extract in Hamilton's pills must be stated on the label.

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. T. W. (20/11).—ICHTHYOL OINTMENT.—The base of the ointment you send is actually or approximately that given in the formula for Unna's paste—gelatin (4), water (16), glycerin (12), zinc oxide (6). The ointment in addition contains 3 per cent. of ichthyol.

P. T. B. (4/12).—POULTRY TONIC.—This is a 5 per cent. solution of iron alum, with a trace of organic matter which appears to be gum.

Celeriter (3/1).—BANDAGE FOR VARICOSE VEINS.—This "bandage" is a gauze well charged with zinc oxide and glycerin; nothing else appears to be present. The zinc oxide amounts to 16 per cent. of the weight of the medicated gauze.

W. H. L. (8/1).—DISPENSING FOR DOCTORS.—A fixed flat rate in charging for dispensed medicine, whether for the public or a medical man, is more or less a gamble. Some of the mixtures the formulas of which you send would be quite fair at 1s. for 5viij., but to give freedom sixteen doses for 1s. is not an average fair price. The best system would be to charge on the Insurance Tariff basis *plus* 6d. for the fee and extra overhead charges incurred. In any case, if 1s. basis is accepted, an account should be kept and the subject be one for revision in three months.

Horticulture (8/1).—GRAFTING WAX FOR HORTICULTURAL USE.—

Burgundy pitch,
Resin of each 4 oz.
Eard,
Beeswax of each 2 oz.

Melt together by gentle heat.

G. S. W. (8/1).—FELLOWSHIP OF THE CHEMICAL SOCIETY is obtained by election upon the recommendation of three Fellows of the Society to whom the candidate is known personally. Candidates' names and qualifications are published in the Society's "Proceedings," and afterwards election takes place by ballot at an ordinary meeting, when thirty or more Fellows must vote for the candidate. The admission fee is £3, and annual subscription £3. The necessary forms can be obtained from the Secretary of the Chemical Society, Burlington House, Piccadilly, London, W.

Rojam (8/1).—DUPLICATOR INK.—Violet ink is the most popular because methyl violet, the colour employed, gives more copies than any other aniline dye. One ounce of methyl violet is triturated with 1 oz. of warm glycerin, the mortar rinsed out with 6 oz. of warm water added and the liquid transferred to a bottle. When cold 1 oz. of alcohol is added.

L. F. L. (10/1).—MOSQUITO PEST.—The basement of a house which is infested with mosquitoes can best be treated by fumigation with sulphur or insect powder, after stopping up all outlets. The sulphur is burnt in a metal vessel standing in water, but if insect powder is used this is sprinkled freely upon a vessel of live coals. The sulphur process will not be suitable if the fumes can escape to the rest of the house.

Acid (10/1).—HEADACHE POWDERS.—It is only of late years that aspirin has been employed as an ingredient in headache powders. The proportion you mention does not occur in any of the formulas published as "known, admitted and approved" remedies, but you can register the exact formula later on in the year in *The Chemist and Druggist Diary*. Headache Tablet, P.F.8, contains aspirin gr. iij., phenacetin gr. ij., caffeine citrate gr. ss. Two of these tablets are nearly of the same composition as the powder, the formula of which you submit.

F. W. S. (11/1).—The metal type in the printing outfit requires the use of printer's ink. This cannot be made successfully on a small scale.

Onia (12/1).—LAWN SAND.—

I		II	
Sodium bisulphate ...	1	Calcium acid phosphate...	1
Coarse sand	3	Ammonium sulphate ...	5
		Coarse sand	4

H. S. A. (12/1).—CORN SALVE "P.F. 103."

Ac. salicyl. partes xL
Ung. resinæ partes LX
Ol. virid. vel.
Ol. rub. q.s.

J. M. L. (12/1).—ALUMINIUM SOLDER.—A suitable solder for aluminium is a mixture of tin 5 parts, aluminium 1 part. The flux used is oleic acid or tallow.

G. R. M. (13/1).—COST OF TINCTURES.—It is doubtful whether any chemist can make small quantities of tinctures and spirits more economically than he can buy them. In the first place, the initial cost of the ingredients is too high if manufacture is intended, therefore it is necessary to cut the original costs. Alcohol at 140s. per gallon is at least 9s. too high if you are going to make preparations, and probably a similar remark will apply to the chloroform in spt. chloroformi. Spt. chlorof. can be made at 4s. 10d. per pint exclusive of overhead charges, which is just about the amount you are already paying, or say a trifle less. Do not forget that the manufacturer gets an additional percentage and slightly less cost price on the above, hence he can sell at a cheap rate. Where you can get a pull on manufacture is where there is increased cost of production due to the time factor as increased oncost.

Tombs (13/1).—Memorial stones in cemeteries are best cleaned by means of hydrochloric acid diluted with about an equal quantity of water. Afterwards the acid should be washed away from the surface of the stone by using plenty of water. Oxalic acid solution is used alternatively, and in some cases scrubbing with sand or bath-brick may be needed.

W. B. (15/1).—NON-ALCOHOLIC WINE can only be made in countries where there is a plentiful supply of grapes. There is, however, a process in which raisins are employed in place of grapes, but the liquid has to be sterilised to prevent fermentation producing alcohol.

J. W. D. (15/1).—MUCILAGE employed for labels is a solution of gum arabic in water (4 lb. to one gallon), with a little glycerin (to prevent curling of the label), and a small quantity of formalin (as preservative). The mucilage would dry quicker without the glycerin.

H. P. (17/1).—GRAVY COLOURING.—A starch, tumefied by heat, is used as the thickening agent for gravy colouring, pulv. tragacanth being too expensive for the purpose. The preservative employed is salt or sugar or both, these not being affected by the new regulations regarding the use of preservatives in food.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," January 15, 1877

Smiler's Patent Health Lift

Dr. Smiler, says Max Adeler, had a large tank placed on the top of his house, from which to supply his bathroom, and so forth, with water. The water had to be pumped up about fifty feet from the cistern in the yard, and the doctor found it to be a pretty good-sized job, which would cause him constant expense. So, after thinking the matter over very carefully, one day an idea struck him. He built a room over the cistern, and put the word "Sanitarium" over the door. Then he concealed the pump machinery beneath the floor, and he rigged up a kind of complicated apparatus with handles and hinges and a crank, so that a man by standing in the middle of the machine and pulling the handle up and down would operate that pump. Then the doctor got out circulars and published advertisements about "Smiler's Patent Health Lift," and he secured testimonials from a thousand or so people who agreed that the health lift was the only hope for the physical salvation of the human race. Pretty soon people began to see about it, and Smiler would rush them out to the "Sanitarium" and set them to jerking the handles. And when a customer had pumped up fifty gallons or so, Smiler would charge him a quarter, and tell him that three months of that kind of thing would give him muscles like a prizefighter. The thing became so popular that he had to enlarge his tank and put in a smaller pump; and he not only got all his pumping done for nothing, but the people who did it paid him about \$1,500 dollars a year for the privilege.



[Commenced C. & D., July 5, 1924]

Income-Tax Allowance.—In the paragraph under this title, which was printed in the *C. & D.*, January 8, p. 60, the omission of a line altered the sense of the statement. Beginning with the thirty-fifth line the paragraph should read:—

An allowance from the tax found payable is also granted in respect of premiums paid for a policy of insurance on his own life or the life of his wife. This in the case of policies taken out since June 16, 1916, is at half the standard rate of the tax. *For policies taken out before June 23, 1916, one-half if the income does not exceed £1,000, three-fourths if it exceeds £1,000 but does not exceed £2,000, and if the income exceeds £2,000 at the full standard rate.*

The omitted line is indicated in italics.

Index Kewensis.—Near the close of his life, Charles Darwin expressed a wish to aid the scientific work carried on at the Royal Botanical Gardens, Kew; the outcome of this desire was the monumental work known as the Index Kewensis. The preparation was entrusted to Mr. Daydon Jackson, and occupied ten years; in 1892 he completed his work, and then Sir Joseph Hooker, who had been Director of the Gardens from 1865 to 1885, took the proof-reading in hand, a task which filled three more years. The Index as originally published consists of two quarto volumes containing 1,268 and 1,299 pages respectively; these volumes have been followed at intervals by six supplements, the latest of which, covering mainly the work of the years 1916-20, was issued in 1926. The names of the genera are arranged alphabetically, and those of the species (also alphabetically) under their respective genera, each species name being followed by a bibliographical reference. Thus, the word "*Hyoscyamus*" is followed by "[Tourn.] Linn. Syst. ed. I (1735). *SOLANACEÆ*, Benth. & Hook. f. ii. 903"; next comes "*HYOSCARPUS*, Dulac, Fl. Hautes-Pyr. 444 (1857)"; and finally the species follow, beginning with "*agrestis*, Kit. in Schult. Oestr. Fl. ed. II. i. 383 = *niger*." As an illustration of the scope of the work, it may be mentioned that there are forty-seven entries of this kind in the original volumes under "*Hyoscyamus*"—some, however, being alternative names for the same plant, and that many of the commoner genera—e.g., *euphorbia*—occupy several pages each.

Indexing Stock.—Systematic methods of keeping stock are necessary if the trader wishes to avoid either accumulations or sudden shortages. If records are kept of the various items of stock, entered under the brand or commodity heading, together with a note in the margin indicating date of receipt, or any other pertinent details, it will be found much easier to keep a check on the movement of goods. With the ordinary lines of products it is easily possible to introduce a regular system of controlling the movements of stock, and the use of indexed lists can be the means of saving a lot of counting and recounting. It should be possible, by using aids of this description, to tell at a glance, not only what is in stock, but also how far the estimated sale of a given commodity has been realised.

India.—There is no legislation dealing specifically with the practice of pharmacy in British India. The Bengal Act No. 3 of 1899 (Calcutta Municipal Act) provides that no shop shall be kept for the retail sale of drugs in Calcutta unless it is registered in the municipal office. The chairman of the corporation, upon registration, grants the keeper of the shop a licence which must be conspicuously displayed on his premises. If registration

is refused, the applicant may appeal to the General Committee, whose decision is final. The Local Government is empowered to make rules prescribing an educational course for candidates for compounders' certificates, the fees to be paid, course of study, conditions of examination, etc. No person may compound, dispense or sell any drug in a registered shop unless he holds a compounder's certificate, or a permission; the latter is granted to the holder of recognised qualifications. These stipulations do not apply to the sale of drugs used by practitioners of indigenous medicines. The first Poisons Act extending to the whole of British India came into force in 1904. This was repealed in 1919, when a consolidated Act was passed. The Poisons Act, 1919 (amended in 1920), provides that subject to the control of the Governor-General in Council, the Local Government may by rule regulate within its territories the possession and sale, whether wholesale or retail, of any specified poison. These rules may provide for the grant of licences; the classes of persons to whom alone such licences may be granted; the fixing of a fee for a licence; the classes of persons to whom alone any scheduled poison may be sold; the maximum quantity which may be sold; the keeping of registers and the particulars to be entered therein; the safe custody of such poisons and the labelling of the containers or packages in which they are sold; and the inspection and examination of any poison when possessed for sale by a licensed vendor. The importation into British India of any specified poison may be prohibited, except in accordance with the conditions of a licence. The Indian Penal Code makes it an offence to adulterate any drug or medical preparation in such a manner as to lessen its efficacy, to change its operation, or to render it noxious. The Opium Act, 1878, forbids the cultivation of the poppy, the manufacture, possession, and sale of opium, except as permitted by rules framed under this or any other enactment. The Excise Act, 1896, deals with the restrictions on the cultivation of the hemp plant, the preparation and control of intoxicating drugs (ganja, bhang, charas, etc.) from the latter, their storage and transport. The following rates of duties are levied on the goods mentioned when imported into British India: Perfumed spirits, Rs. 36 per Imperial gallon or 6 quart bottles, or 15 per cent. *ad val.*, whichever is higher; saccharin, Rs. 5 per lb.; saccharin tablets, 15 per cent. *ad val.*, or Rs. 5 per lb. of saccharin content, whichever is higher; opium and its alkaloids and their derivatives, Rs. 24 per seer of 80 tolas, or 15 per cent. *ad val.*, whichever is higher. An *ad valorem* duty of 15 per cent. is levied on drugs, medicines, narcotics, and perfumery, not otherwise specified. In the case of certain specified chemicals and drugs an *ad val.* duty of 15 per cent. is charged on the tariff valuation of each article; the following amounts, in rupees, give the tariff valuations per cwt. of certain articles, the 15 per cent. duty being charged on these values:—Cloves, 58.0.0; ginger, 33.0.0; pepper, black, 50.0.0; pepper, white, 85.0.0; gum acacia, 23.0.0; myrrh, 35.0.0; olibanum, 11.0.0; coconut oil, 30.0.0; linseed oil, 4.0.0 (per Imperial gallon); peppermint oil, 8.0.0 (per lb.); alum, 6.0.0; bleaching powder, 10.0.0; Epsom salt (in bulk), 3.8.0; sodium bicarbonate, 8.8.0; caustic soda, solid, 10.8.0; copper sulphate, 18.0.0; camphor, refined, 2.4.0 (per lb.); camphor, refined slabs, 2.0.0 (per lb.); camphor, powder from Japan, 2.0.0 (per lb.); camphor, powder from China, including Hongkong, 1.12.0 (per lb.); camphor, synthetic, 1.10.0; cubebs, 100.0.0; salep, 200.0.0; storax, 30.0.0. Anti-plague serum, cinchona, cinchona alkaloids (including quinine), sulphur, trade catalogues and advertising circulars are admitted free of duty.

India: Assistants' Terms.—Qualified assistants not more than twenty-five years of age who apply for posts in India are usually engaged, by signed agreement, subject to a satisfactory medical report, for either three or four years. The age limit is occasionally waived. Passages are normally paid both ways, with an allowance for the incidental expenses of the voyage. The average salary is rs. 400 a month, increasing by rs. 25 annually. Hours vary, but may be summarised as from

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8.30 a.m. to 5.30 p.m., with evening and week-end duties in rotation. The cost of living is relatively high: it is estimated that half an assistant's salary is spent on board and lodging, and clothes are expensive. Sport of several kinds is available. A detailed account of the conditions of a qualified assistant's life in India appeared in the *C. & D.*, 1926, II, 693.

India, Importation of Intoxicating Drugs.—The importation into British India by sea or land of any of the intoxicating drugs, or their preparations, mentioned in the first column of the table given below from any place named in the second column is prohibited, except when covered by one of the exceptions specified in the third column:—

Article	Imported from	Exception
1. (a) Raw opium ..	Any Indian State or Foreign Settlement in India	Raw opium, imported, otherwise than by post: (a) On behalf of the Government of India, (b) under an import authorisation granted by the Government of India, or (c) in accordance with any rule framed under section 5 of the Opium Act, I of 1878.
(b) Ditto ..	Any other place outside British India	Raw opium, imported, otherwise than by post, under an import authorisation granted by the Government of India.
2. Prepared opium, as defined in The Hague Opium Convention of 1912	Any place outside British India	No exception.
3. Coca leaves ..	Ditto ..	Importations, otherwise than by post, covered by an import authorisation granted by the local Government within whose jurisdiction the importer resides or has his place of business, or by an officer empowered in this behalf by such local Government.
4. (a) Medicinal opium .. (b) Crude cocaine and ecgonine. (c) Morphine, diacetylmorphine, cocaine and their respective salts; (d) All preparations, official and non-official (including the so-called anti-opium remedies), containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine; (e) All preparations containing diacetylmorphine (f) Galenical preparations (extract and tincture) of Indian hemp	Ditto ..	Importations, otherwise than by post, covered by an import authorisation granted by the local Government within whose jurisdiction the importer resides or has his place of business, or by an officer empowered in this behalf by such local Government. Importations, otherwise than by post in transit to a place outside British India, covered by an import authorisation granted by or under the orders of the local Government within whose jurisdiction the port or place of importation is situated, such authorisations being marked "In transit."
5. Indian hemp and bhang	Ditto ..	Importations, otherwise than by post: (a) On behalf of any local Government, (b) under an import authorisation granted by the local Government within whose jurisdiction the importer resides or has his place of business, or by an officer empowered in this behalf by such local Government, and (c) In accordance with any rule framed under any local Excise Act.

India, Exportation of Intoxicating Drugs.—The export of raw opium by sea out of British India is prohibited, save from the ports of Bombay and Calcutta. The

taking by sea out of British India of medicinal opium, crude cocaine and ecgonine, morphine, diacetylmorphine, cocaine and their salts, all preparations official and non-official (including the so-called anti-opium remedies) containing more than 0.2 per cent. of morphine or more than 0.1 per cent. of cocaine, all preparations containing diacetylmorphine, galenical preparations of Indian hemp, and Indian hemp, is prohibited except from the ports of Bombay, Calcutta, Madras, Rangoon and Karachi. The exportation of any of these goods to a place outside British India is not allowed without an authorisation issued by an authority appointed in this behalf by the Governor-General in Council. In the case of raw opium, the Government of Bengal, and the Collector of Customs, Bombay, respectively, are the authorities competent to grant export authorisations, which are not issued unless special permission in each case has previously been obtained from the Government of India, unless the opium is being exported: (1) On behalf of the Government, or by a merchant who has purchased it from the Government under the rules governing the sale of Government opium for export; (2) to a country which has ratified the International Opium Convention of 1912, and an import certificate from the country of destination is produced. The Collectors of Customs at Calcutta, Bombay, Madras, Rangoon, and Karachi are competent to grant export authorisations for opium derivatives, cocaine and Indian hemp, under the same conditions as for opium. However, in the case of Indian hemp, the production of a special certificate issued by the Government of the importing country is required, stating that the importation is approved for the purpose specified in the certificate, and that the resin or preparation of hemp will not be re-exported.

India, Government Control of Quinine.—The production, supply and distribution of quinine, cinchona and all cinchona products in India is under Government control. The Government of India is empowered to make rules for the following purposes: (1) The maintenance by purchase or by planting and manufacture of such stocks of quinine as may be necessary, in addition to those held by local governments, to meet current official requirements and to form a reserve for use in epidemics; (2) the fixing of issue prices of quinine on a uniform basis, which shall be binding on the Government of India and on all local governments; (3) the regulation of the planting programmes of local governments and the co-ordination of such programmes with the planting programme of the Government of India; (4) the determination of the areas which shall be supplied with quinine from each source of supply; (5) the prohibition of the sale by local governments of quinine produced by them to countries outside India without the previous approval of the Government of India; and (6) the prohibition of the purchase by any local government of quinine from any source other than a Government factory specified in this behalf under clause (4) unless the factory is unable to supply quinine of the amount and quality required within the time named by the local government in its order for such quinine.

Indian Brandy: Sale.—In "Pharmaceutical Formulas" three recipes for Indian brandy are given—the first a slightly sweetened mixture of spirit of nitrous ether and compound tincture of rhubarb; the second a thin coloured syrup mixed with spirit of nitrous ether and spirit of chloroform; and the third, a non-excisable liquid based on Irosyl and compound tincture of rhubarb. The exemption in Sec. 12 of the well-known Act of 1742-43 (16 Geo. II, cap. 8) is not extended by the Board of Customs and Excise to traders other than chemists and druggists or companies lawfully carrying on the business of a chemist and druggist; unqualified vendors must therefore hold a sweets licence if they wish to sell the second variety referred to.

Indian Hemp.—See Cannabis Indica.



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½ doz. 5/- size	..	..	..	1 2 6	1 doz. 3/- size	..	..	£1 16 0
				2 9 6	½ doz. 5/- size	..	..	1 10 0
5% discount cash with order	..	..	..	2 6	¼ doz. 3/- bonus	..	..	9 0
Cost Price	..	..	..	£2 7 0				£3 15 0

The above parcel sent Carriage Paid.

PROFIT—£1 8 0

BELTONA LTD., HIGH STREET, HODDESDON, HERTS.
STOCKED BY ALL PRINCIPAL WHOLESALERS.



Help Yourself to Maximum Sales

All the year round,
sales of Dr. Cassell's
Tablets are guaranteed
by lavish publicity.

DR. Cassell's Tablets are boomed by continuous and impressive news advertising, associated with vigorous poster publicity, advertisements on buses, electric signs, and effective window displays.

Quick sales, sure repeats, and a good profit is the daily routine when Dr. Cassell's Tablets are displayed. It is a line which you cannot help but sell because the public will have it.

Dr. Cassell's Tablets will amply repay you, they are a most profitable line. Order now while the thought is with you. To be short of stock means loss of profit and goodwill.

Write for Price List and ask for a selection
of our new Show Cards and Advertising
Material for Window Displays.



VENO DRUG CO. (1925) LTD.

Manufacturing Chemists,
MANCHESTER.

Telegrams:
"SEAWEED,
MANCHESTER."

Telephones:
TRAFFORD PARK,
496 & 497.

IRVING'S

YEAST-VITE

TABLETS

MAKE YOUR WINDOWS PAY YOUR RENT.

STOCK THE BEST SELLER IN THE TRADE.

Shows over 43% Profit as follows :

				COST	RETAIL
6 dozen	1/3 size @	12/6	...	£3 15 0	£4 10 0
2 "	3/- "	@ 30/-	...	3 0 0	3 12 0
1/2 "	5/- "	@ 48/-	...	1 4 0	1 10 0
BONUS :	1 dozen	1/3 size	...	FREE	0 15 0
	4 only	3/- "	...	"	0 12 0
	1 "	5/- "	...	"	0 5 0
			Total	£7 19 0	£11 4 0
			PROFIT	£3 5 0	
			2 1/2 % 7 days	0 3 11	
			TOTAL	£3 8 11	

**SHOW MATERIAL and
PRESS ADVERTISING****} With a Kick in it!**

ADDRESS : 12-16 LAYSTALL ST., CLERKENWELL, LONDON, E.C.1

*Acidophilus
Therapy***B. ACIDOPHILUS - EMULSION**

(MORGENSTERN)

A concentrated, stable, homogeneous and palatable emulsion
of**B. ACIDOPHILUS**

(about 250 millions per c.c.)

AGAR-AGAR, PETROLAT. liq. (heavy), SACCH.,
flavouring*Indicated in Constipation, Intestinal Stasis with
Chronic intestinal putrefaction, etc.***E. H. SPICER & Co., Ltd.**

72 WIGMORE STREET, LONDON, W.1

"HARROWER"**GLANDULAR
PREPARATIONS**are the product of a Labor-
atory which deals with
nothing else. They are
"specialties" in the best
sense of the word. Hence
their value.*Price List & complete details on request to:***ENDOCRINES, LTD.***Sole Distributors for The Harrower Laboratory,
72 WIGMORE ST., LONDON, W.1*



Petrolagar

(trade mark)

FREE TO THE RETAIL CHEMIST.

Until further notice we will allow you **ONE BOTTLE** of **PETROLAGAR** FREE with each single order for **ONE DOZEN** ordered from your wholesaler.



8 $\frac{1}{2}$ % MORE PROFIT FOR YOU.

Petrolagar is an ethical product which never has been advertised to the public.

We make this free offer as a special inducement to the retail chemists to carry ample stocks to meet the demand of the doctors with whom we are carrying on an intensive ethical advertising and detailing campaign for Petrolagar.

You may have **ONE 8-oz. BOTTLE FREE** with 1 doz. 8-oz. size, any assortment,

or
ONE 16-oz. BOTTLE FREE with 1 doz. 16-oz. size, any assortment
(not a mixed dozen of large and small).

ORDER PETROLAGAR IN DOZEN LOTS FROM YOUR WHOLESALER.

DESHELL LABORATORIES LTD., 1-3 BRIXTON ROAD, LONDON, S.W.9.
PHONE: BRIXTON 1188.

AN APOLOGY

We tender our sincere apologies to the Chemist and Wholesaler who have had to disappoint their customers with supplies of

SEA-VITOID TABLETS

due to lack of capacity for meeting the unexpected demand. However, we are increasing our output daily and hope in the course of a few days to have cleared all orders and to be more prompt in executing further orders.

Come in with the flowing tide and secure your share of the business. Install our fascinating window display. It pulls! It brings new customers into your shop! Liberal bonus terms. Send postcard for particulars.

SEA-VITOID WILL SOON BE YOUR BEST SELLER!

HYGIENIC FOOD PRODUCTS Ltd., 57 Holborn Viaduct, E.C.1

PROGRESS

PIONEERS OF
INDUSTRY
AMBASSADORS OF
COMMERCE

Those are the factors which
matter and which go to the
advent of

PROGRESS

The high standard of efficiency in the quality of *your* goods leads to

PROGRESS

The attractive nature of the designs of *our* Cartons will give *you* an excellent Window and Counter Display.

As an Advertising Medium, our Handbills, etc., are second to none. Write us for samples and ensure

PROGRESS

ALF. HARRISON & SONS, Ltd.

Chemists' Printers,

**BURLEY ROAD,
LEEDS.**

TELEPHONE: HEADINGLEY 51974. TELEGRAMS: "IDEAS," LEEDS.

London Office:—

SENTINEL HOUSE, SOUTHAMPTON ROW,
LONDON, W.C.1.

THE SEASON'S ADVERTISING CAMPAIGN Lakerol

The World-Famous Bronchial Pastilles.

The sales of Lakerol are increasing every day. The public know the value of Lakerol and they will be still further convinced by the huge advertising campaign now in progress.

ADVERTISING
THAT MAKES
YOUR PROFITS
B I G G E R

The principal London Dailies and the morning and evening journals in most Provincial towns are being used to advertise Lakerol. Special prominence is being given to the Lakerol Competition Scheme which is already widely popular. Space has also been taken on the Tubes and Omnibuses. Are you ready to meet the demand?



SELL AT
1/3 PER TIN
TRADE TERMS
11/3 per dozen—
Carriage Paid

Packing free. 21% for cash with order of 6 doz. Otherwise net cash in 14 days. Bonus of 1 doz. with each 2 gross, and bonus of 2 tins with order of 2 doz. if window or counter display is given for 14 days.

Pastilles Ltd., 124 High St., Shoreditch, London, E.1.

It will pay you to stock them!

When the public demand goods bearing a specified name the wide-awake retailer prepares to meet that demand and so reap the benefits which follow.

IGLODINE is fast becoming a household word, and the public, through satisfaction which comes after trial, are demanding IGLODINE PREPARATIONS. Are you the retailer who is preparing to meet the demand?

Iglodine

Write to-day for full particulars to:

THE IGLODINE CO., LTD. - Newcastle-on-Tyne.

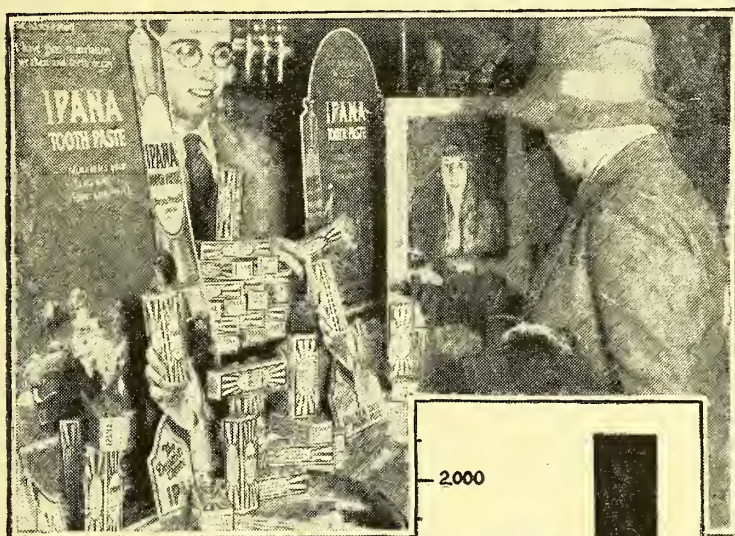
ERGOAPIOL (Smith) PROTECTIVE MARK

Patented in U.S. and Foreign Countries.

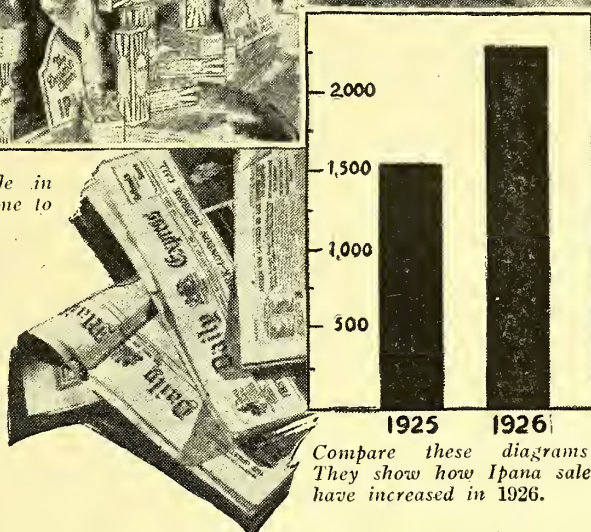
Ergoapiol (Smith) is now identified by the letters M.H.S. in the gelatin on the inside of each capsule. These letters are not visible from the outside, but they are plainly discernible in the gelatin when the capsule is cut in half.

MARTIN H. SMITH CO. NEW YORK, N.Y.

British Agents—
THOS. CHRISTY & CO., 4-12 Old Swan Lane, London, E.C.4



See that people in
your district come to
you for Ipana



Compare these diagrams!
They show how Ipana sales
have increased in 1926.

Discussed in the
daily press, em-
phasized in our
advertisements —
the necessity for
keeping the gums
healthy is becom-
ing more and
more widely un-
derstood

Record sales in 1926 of this well-known tooth paste!

Here is the explanation
of its wonderful success
— the reason why, this
year, it will make even
more profits for you

1926—a memorable year
in trade history—a
record year as regards sales of
at least one pharmaceutical
product.

For Ipana Tooth Paste sales
for 1926 are actually *half as
big again* as those for 1925.
Each month has brought a
steady increase — a wider de-
mand for this unique dentifrice.

How has this demand been
created? Advertising is the

explanation — advertising which
appears in magazines read in
thousands of homes all over
the country — advertising
which has all the weight of
medical and dental opinion be-
hind it!

**Dentists and doctors urge
better care of the teeth!**

Dentists and doctors every-
where, alarmed by the preva-
lence of dental decay, are urg-
ing people to take better care
of their teeth — to safeguard
them by keeping the gums
healthy.

Statements, warnings, ad-
vice, given by leading special-
ists, published in the daily
press, are making people think

seriously about the state of their
teeth. And our advertising
*teaches them the way to safe-
guard their teeth* — explains
why Ipana, unlike ordinary
dentifrices, is able to keep the
gums healthy, the teeth sound.

That is why, every day, more
and more people start using
Ipana!

**An opportunity you
must not miss!**

Don't lose this wonderful opportunity
of increasing your profits! People in
your district want Ipana. Let them
know that you stock it. Order Ipana
today from us, or from your regular
P.A.T.A. wholesaler. Write for par-
ticulars of the special, advantageous
display terms we offer, together with
a free supply of attractive show
material! Bristol-Myers Company,
112, Cheapside, London, E.C.2.

FREDK. YOULDON

(Formerly Proprietor of E. Youldon. Established 1840)

**68 BASINGHALL STREET
LONDON, E.C.2**Phone :
London Wall 3529.Telegrams :
"Youldon, Ave, London."Enquiries and orders for
ALL KINDS OF**GLASS
BOTTLES**

will receive immediate attention.

**BOTTLES and JARS**

of every description.

Send your enquiries now for

OLIVE OIL BOTTLES
Provence and Pedestal Shapes

Good "Turned" quality.



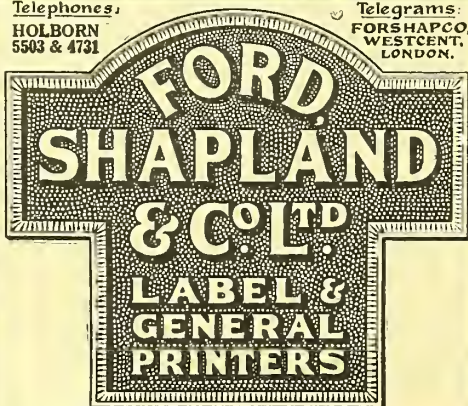
Write or phone (Central 2430, 5 lines and 4 private lines).

L. LEPERSONNE & Co.
99 CANNON STREET - LONDON, E.C.4

(Strictly Wholesale. Original cases only.)

TRUST NOT IMITATIONS,
you can still obtain:: **VISKAP** ::**BOTTLE CAPS**

as supplied by us for over 20 years

**SELF-FIXING, HERMETIC,
TRANSPARENT, OPAQUE, COLOURED, WHITE.**
IMMEDIATE DELIVERYfrom the Original Patentees and Manufacturers :
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WESTCENT,
LONDON.**FINE ART SHOWCARDS. CARTONS,
ENVELOPES FOR SHAMPOO POWDERS,
CORN SILK, ETC.****"Sol-Vo" Sanitary Paper**
in Rolls & Packets.AGENTS FOR THE REGISTRATION
OF TRADE MARKS.**EMBOSSED** SHOWCARDS
and
PRICE
TICKETS

IN SMALL OR LARGE QUANTITIES.

Ask for Sample and Prices—

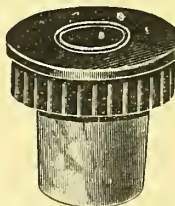
EMBOSSED SHOWCARD CO., Holborn
151, HIGH HOLBORN, W.C.1. 0404.

Ask for "PAZO"

PILL BOXESThe most convenient and
secure Pill Box obtainable.**NO LOOSE BOTTOMS**

Samples and Prices on application

The "PAZO" CO., Oldbury

STOPPERS**200 Varieties**
Any Colour.A suitable Composition Stopper will
enhance the selling
value of your
package. Let us fit
your Bottles and
quote you.**T. WEBSTER & Co.** Telephone :
Mountview 0952.
Diamine House, Middle Lane, Hornsey, LONDON, N.8

Don't use COMMON BOTTLES

There is nobody so fastidious as an Invalid. Cater to his fastidiousness by turning out your prescriptions in the best possible style.

There is no better help than a smoothly finished, bright, attractive bottle.

Buy BEATSON'S BOTTLES

ESTABLISHED 1751.

Beatson, Clark & Co., Ltd.
ROTHERHAM GLASS WORKS,
ROTHERHAM.

BOTTLES

OF EVERY
DESCRIPTION
Wholesale & Export Only

We make good

BOTTLES

—hand or machine made.

Large and well-organised works enable us to meet your immediate requirements for:—

**DISPENSING, EMULSION,
COUGH MIXTURE,
SAUCE, EMBROCATION,
FEEDING BOTTLES, &c.**

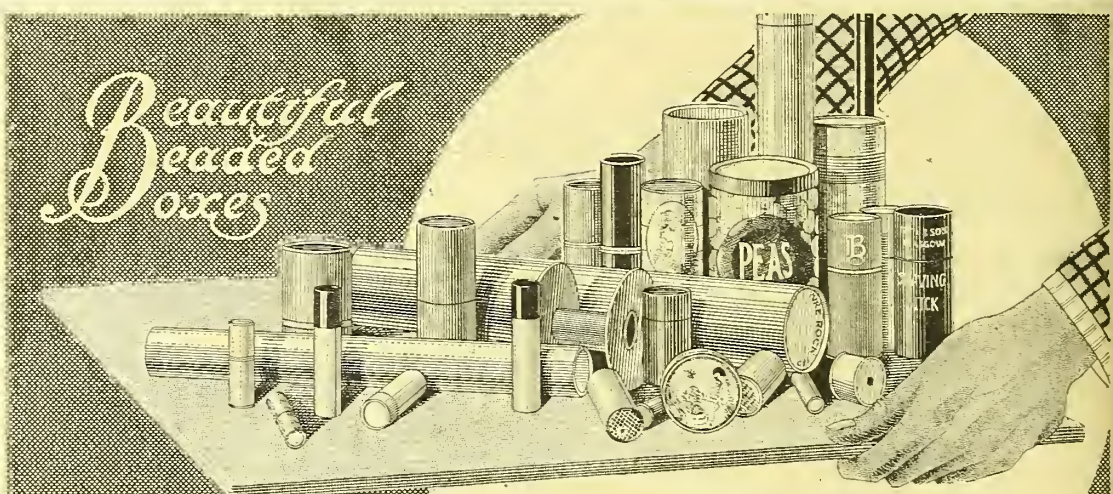
*Our prices are right—
and our Bottles are
British manufacture.*

Make us your standard
Bottle suppliers—we can
meet your every need.

LAX & SHAW
LIMITED
ALBERT GLASS WORKS
HUNSLET, LEEDS.

*Belinda Glass Works, Hunslet. Clarence Glass Wks. Hunslet.
Telegrams: "Feeders, Leeds" Telephone: 27047, 23080 Leeds*

Beautiful Beaded Boxes



WE specialise in the manufacture of small round boxes.
One of the lines that is very popular is our "LITTLE JOHN" Drum (patent) which can be used for packing practically anything in powder form. It is also extremely useful for sampling purposes.
This box is made with specially beaded ends and it is impossible for the ends to fall out.
Send postcard to-day for Samples and Prices.

ROBINSON & SONS, LIMITED :: CHESTERFIELD.

Efficient Display

NEW "STAND-SHOWCARD"

NO STRUT NO GLUE

Cut in one piece.
Self-fixing.
Pack flat.

YOUR CARDS WILL
BE USED — YOUR
GOODS DISPLAYED

OVER 1,000,000 USED BY
LEADING MANUFACTURERS

*Phone: Clerkenwell 4283. Patentees & Makers.
The SHOWCARD SPECIALISTS
27 GOSWELL RD LONDON, E.C.1.



Send for Particulars

First Favourite with Dancers.



HANDSOME 3-COLOURED ENAMELLED TIN.
P.A.T.A.—1/6..12/- per doz.; 3/6..28/- per doz.
SOLD EVERYWHERE. Manufactured by
LOFTHOUSE & SALTMER Ltd., HULL.



GLASS - MAKING

an old craft aided by modern science.

CONTAINERS

in art colours for

PERFUMES,

COSMETICS,

& BATH

CRYSTALS.

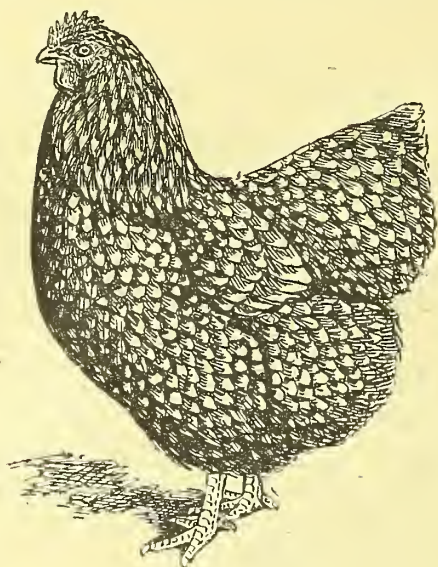
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WOOD BROS. GLASS COMPANY Ltd

Barnsley.

England.

Established 1828.



MAY, ROBERTS

WATERGLASS

(FULL STRENGTH)

MAY, ROBERTS Waterglass is guaranteed to be of the highest possible degree of concentration (140° Tw). It is packed in composite containers with tin tops and bottoms, which many years' experience have proved to be more satisfactory in every way than tins. There is less—not more—liability to leakage, and the contents do not discolour on keeping.

1 lb. size in cases of 6 dozen

2 „	„	3 „
4 „	„	2 „
7 „	„	1½ „

Write now for Prices.

MAY, ROBERTS & CO., Ltd.,

(P.O. Box 157)

7/13 Clerkenwell Road, LONDON, E.C.1



THE CHEMIST AND DRUGGIST

SUPPLEMENT

42 CANNON ST.
LONDON E.C.4

JANUARY 29, 1927

This Supplement is inserted in every copy of The Chemist & Druggist.

THE SUPPLY OF SUPPLEMENTS.

The clerical work in connection with the posting of spare copies of the Coloured Supplement week by week has increased to such an extent that we have been compelled to reorganise our system of distribution. Our readers will please note, therefore, that in future, instructions can be accepted for not more than six successive issues of the Supplement at a time, and that in every case the name and full postal address should be written on

Post Office Wrappers, Stamped One Penny, to ensure prompt delivery.

Loose stamps will not be accepted.

CLOSING FOR PRESS.

**DO NOT REACH US
LATER THAN**

FIRST POST THURSDAY MORNING.

ALL ADVERTISEMENTS INTENDED FOR
INSERTION IN THIS SUPPLEMENT

CHEMISTS' TRANSFERS.

Messrs. Orridge & Co., 56 Ludgate Hill, E.C.

Telephone No.: CITY 2283.

May be consulted at their Offices on matters of Sale, Purchase and Valuation

—GREAT WESTERN MAIN LINE (Few Miles Out).—Old-established Business; returns £2,100, with scope for increase under more energetic management; double-fronted shop, well stocked and stocked; small house; price £1,600; part of purchase money would be allowed to remain.

—WESTERN SUBURB.—Working-class Retail Business, with Cash Agency; returns exceed £2,500 per annum; gross profit £900; double-fronted shop; stock and fixtures about £1,000; sublet to show small profit rental; lease 14 years to run; price £1,675.

—NORTH LONDON.—For immediate Disposal, through illness, medium-class Retail and N.H.I. Dispensing Business; returns about £2,400 at very good prices; double-fronted corner shop, with good working stock; ample living accommodation; long lease; moderate rental; price £1,650.

—CITY (Borders of).—Cash Retail Business in busy shopping thoroughfare; returns, £44 weekly; attractive shop; estimated value of stock and fixtures, £1,000; held on lease at moderate rental; price £1,250, or valuation terms entertained.

—BRIXTON.—Cash Retail Business, with N.H.I. Dispensing; returns £1,200, at good prices; single-fronted shop, with large stock; new 21 years' lease will be granted at a rental of £50 per annum; lock-up Pharmacy; lump sum offer or valuation terms entertained.

—POPULAR HEALTH RESORT.—Well-established Business; Retail, Dispensing and Photographic; situation near sea; returns £3,400; gross profit 36 per cent.; nicely-fitted up and comfortable residence; price about £2,500.

—ESSEX (Few Miles Out).—General Retail and Photographic, with excellent opening for N.H.I. Dispensing; returns £1,100, at very good prices; corner shop; small living accommodation; rent £55; freehold may be bought for £500; price £50.

8.—HANTS (Death Vacancy).—Unopposed Business in small seaside town; returns exceed £1,400 per annum; the late owner suffered very much, and the business should be considerably increased under energetic management; convenient house; the freehold must be purchased; price for business and premises, £1,500.

9.—SALOP.—Country Retail Business; established many years; returns £3,200; net profit exceeds £600; double-fronted shop; very good house; would sell property for £1,250, or grant lease at rental of £80; price of business, £2,000.

10.—GREAT WESTERN LINE.—Good-class Dispensing and Retail Business; returns exceed £7,000; double-fronted shop and large premises; freehold must also be purchased; intending investors with £8,000 at command will be furnished with further details on receipt of banker's reference.

11.—BUCKS.—General Retail and Dispensing Business; old-established; returns £3,700, with scope for increase, at good prices; living accommodation in good state of repair; rent £60; long lease; price £3,000, or valuation terms entertained.

12.—BOURNEMOUTH.—General Retail and Photographic Business; returns £2,200; modern double-fronted lock-up shop, fitted in oak and fully stocked; 18 years' lease; price £1,750; also small Branch, with good living accommodation; price £550; scope for increase in both cases.

13.—DORSET COAST.—Cash Drug and Photographic Stores; returns £26 to £30 weekly at good prices; double-fronted corner shop; stock and fixtures estimated by Vendor at about £700; new lease will be granted, or freehold may be purchased; price of business £1,000.

14.—YORKS.—Good-class, old-established Business, returning about £6,000 per annum; gross profit £1,800; imposing corner premises; well-fitted pharmacy, heavily stocked; new lease will be granted; price, to include goodwill, stock and fixtures, £3,650.

Messrs. O. & Co. desire to emphasize the necessity of a full and correct Statement of Account by which means alone the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted and eventually becomes a source of confusion and loss.

Valuations for Stocktaking

Messrs. O. & Co. are prepared to undertake these essential duties and make Special Terms for such service.

ORRIDGE & CO., 56 LUDGATE HILL, LONDON, E.C.4

The Association of Mnfg. Chemists

— LIMITED —

Business Agency Transfer & Valuation Department.

Head Offices—

Kimberley House, Holborn Viaduct, London,

E.C.1 (and at 2 Bixteth Street, Liverpool).

PARKIN S. BOOTH, Accountant & Valuer, Phone: City 1261-2-3

BUSINESSES FOR DISPOSAL

1.—MANCHESTER SUBURB.—Old-established Business in busy suburb; well fitted and stocked; corner position; good house; on lease; returns £700-£1,000, all cash; rent £50 p.a.; let off 14s. 6d. p.w.; price for quick sale £500 all at, or nearest offer. (74)

2.—NORTHUMBERLAND.—Recently-established Cash Pharmacy, with Kodak Agency; average takings £15 15s. per week, which could be considerably increased by energetic qualified man; lock-up shop, rent 5s. per week, house attached; price for goodwill and fixtures, £275; stock to suit purchaser; offers invited. (36)

3.—ALFRETON, DERBYS.—Old-established Business, held on lease, 7 years to run; rent £50 p.a.; returns over £2,000 p.a.; premises on main road, and consist of shop, large house, 4 outside warehouses and garage; proprietor devoting his time to optical business; price £1,500 all in, or £1,300 without optics; exceedingly good opportunity for energetic Chemist; well worth investigation. (84)

4.—YORKS.—£900 will purchase large double-fronted Shop with Warehouse attached on lease, with 9 years to run; returns £25 per week, nearly all cash; stock about £500; rent £50. Further particulars on application. (50)

5.—YORKS.—Good-class Dispensing and Retail Business in busy town; double-fronted shop with house attached in main road; returns £35 per week, all cash; stock about £700; Kodak Agency; price £850. Further particulars on application. (71)

6.—GRIMSBY.—£1,000 will be accepted for an old-established Business, freehold, taking £25 a week, all cash; house, shop, warehouse and cellar; stock amounts to approximately £200; death vacancy. Write for further particulars and order to view. (75)

7.—CHESTERFIELD.—Old-established, double-fronted shop, 3 warehouses, house, 6 rooms and cellars; lease can be obtained; returns £34 per week, practically all cash; stock £700; fixtures, fittings and goodwill £550; price for quick sale £1,100. (65)

8.—TO CLOSE A TRUST. — SALFORD. — Old-established corner Shop, with 3 large windows and large house, part of which could be sub-let; rent, £120 p.a.; returns, £2,000, all cash; price for goodwill, £300; stock and fixtures, about £900; well worth inspection; write for further particulars. (81)

9.—SUFFOLK.—Old-established good-class Dispensing and Optical Business on lease, 16 years to run, at £100 p.a.; good corner position; large well-fitted windows; returns, £44 per week; stock about £900; good house attached, dining room, drawing room, 6 bedrooms, bathroom and kitchen; vendor has good reasons for disposal; offers invited; fullest particulars on application.

10.—LIVERPOOL.—Old-established high-class Dispensing and Family Business, with valuable Proprietary in connection therewith; returns over £2,000 at approximately 62% gross profit; premises held on lease, of which 12 years is to run at a rental of £180 p.a., rising to £200, with possibility of renewal for further period. Full particulars will be sent on application. (51)

11.—LIVERPOOL.—Wholesale Manufacturing Chemist's (principally packed goods); established 7 years; turnover £5,000 per annum, improving; lease 9 years to run at £150 per annum; commodious premises and well adapted, including own printing plant; stock, plant and machinery, about £2,750. Offers invited. Thorough inspection given.

12.—SOUTHPORT.—High-class Family Retail Dispensing Business; well fitted shop, occupying corner position; four large windows, large room at rear and store rooms above; recently established; held on lease, 13 years to run, at £200 for first 7 years and £250 for remainder of term; returns average £39 per week. Full particulars on application.

Stocktaking and Valuation of Businesses undertaken at moderate inclusive fee. Chemists are invited to consult us in respect of their requirements in connection with sale or purchase of businesses. Chemists in the North are requested to communicate with our Liverpool Offices.

BERDOE & FISH

WILLIAM S. FISH.

VALUERS AND TRANSFER AGENTS,

41 Argyle Square, KING'S CROSS, W.C.1

(one minute from St. Pancras and King's Cross Stations).

1.—SALOP.—Good Family Retail, Dispensing, with Photo Agricultural, in busy market town; returns £3,200; net profit £600; audited accounts; good house; heavy stock; price £2,000.

2.—YORKS.—Light Cash Retail; under unqualified owner neglected; returns £1,287; plenty of scope; main road position; rapidly growing district; low rent; small house; price £750; recommended.

3.—HOME COUNTY.—Light Cash Retail and Prescribed Business for Sale through ill-health; returns last year £1,900; scope for increase; good position; fully stocked; price £1,500.

4.—MIDLANDS.—Mixed Retail, with N.H.I.; no Photo Optics; returns £883; net profit £300; market town; double-fronted shop; nicely fitted and good stock; price £550.

5.—HANTS.—Middle-class Retail, under management; returns £1,200 to £1,500; plenty of scope; lock-up shop; well situated; price £200 and valuation, in all £700 to £750.

6.—SOUTH COAST.—Middle-class Cash Retail, in main road; returns £1,100; net profit £300; low rent; long lease; lock-up shop; stock worth £450; price £775, or near offer.

7.—LONDON, S.E.—Good middle-class Suburban Business; returns average £44 weekly; scope for increase; low rent; good reasons for selling; price £1,000; worth attention.

8.—LONDON, S.W.—Middle-class Retail and Photograph Business; returns £1,360; net profit over £300; no N.H.I.; lock-up shop; well fitted and stocked; long lease; price £750.

STOCKTAKING VALUATIONS.

May we quote you a price for doing this important work? Stocktaking, to be of real use, should be done thoroughly, and with our experienced and expert staff we are able to guarantee this, at the same time carrying out the work quickly and without upsetting the general routine of business. We are booking dates for February and onwards.

ESTABLISHED 1870.

Telephone: 0651 Museum

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CHEMISTS' VALUERS, TRANSFER AGENTS,
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Telegraphic Address: "Tomtom."

FOR SALE.

FOR Sale, Fittings of very large Pharmacy, excellent Shelving Drawers, Wall Cases, Silent Salesman Cases, Scales, Carbide Specie Jars, Counters, Dispensing Counter, Sponge Case, Weighing Machine, Window Enclosures, Parquet Flooring, Staircase, etc.; quantity of Green Rubber Floor Covering. Apply G. Pattison, Ph. Chemist, Station Parade, Harrogate.

QUARTER-PLATE Ensign de Luxe Reflex Camera, just overhauled; Zeiss Tessar lens, 4.5, 6 double slides, leather case £15, or best offer. Watt, 28 Esslemont Avenue, Aberdeen.

AGENCIES.

GENTLEMAN of personality, with good experience, qualified to prepare to consider one or two good Agencies working from Liverpool. 116/200, Office of this Paper.

PREMISES WANTED.

REQUIRED Rooms, North London, over Chemist's shop for Dental Surgery; advertiser, a qualified Chemist, would be willing to relieve if needed at any time. State rent, etc., P.C.B. 85/12, Office of this Paper.

BUSINESSES FOR DISPOSAL.

for 50 words or less; 6d. for every additional 10 words or less, prepaid.

ACKPOOL.—Well-established Retail and Photographic Business, with Kodak and Ucal Agencies; full particulars to loved persons. Kershaw, 28 Dickson Road.

SEX.—Drug Stores, 20 miles London; modern house and shop, double-fronted; brick-built garage; trade £15; no ensing; rising neighbourhood; price freehold, stock, fixtures goodwill £1,150. 116/10, Office of this Paper.

VERPOOL (Main Tram Route).—Chemist-Optician Cash Business and Freehold Property (house, shop, warehouse cellar; electric light throughout); good Photographic trade; Proprietaries; Kodak Agency; Retail returns over £1,500, adding N.H.I.; also valuable Wholesale connection; price £100. 118/5, Office of this Paper.

ANCHESTER District (Main Road, centre of a row of company shops).—Newly-fitted Pharmacy, well stocked; takings rising weekly; under manager; average £20; N.H.I. scripts per week, increasing; no immediate opposition; splendid line for Optics; Kodak Agency; good reasons for disposal; fine buyers, with bankers' references, only entertained; seven years £950 for quick sale; rent £45 per annum, rates, about £15 per year. 116/21, Office of this Paper.

ANCHESTER District.—Unopposed, old-established Chemist's Business, only changed hands once in 30 years; sadly neglected during past five years; turnover during past 12 mths, under manager, £1,500; fair prices; well stocked; good position; accept £750 for cash; no triflers. 116/210, Office of this Paper.

ANCHESTER (Two Miles).—Sound, well-fitted and stocked Pharmacy, with Photography, in a densely-populated district; excellent living accommodation; lease can be arranged; fine bargain for Pharmacist waiting immediate opportunity, sure prospects; owner has other interests. Full particulars to bona-fide inquirers only; price £795 for quick disposal. 117/13, Office of this Paper.

ESTON, LANCOS.—Cash Retail Pharmacy; established 24 years; premises consist of shop, with dwelling accommodation and good storage; held on weekly tenancy at rental of £29 annum; returns average £750-£1,000 per annum; good scope energetic man; lease could be arranged; further particulars application. 108/5, Office of this Paper.

UTH COAST.—Light Cash Retail for Sale; well fitted and stocked; easily worked; comfortable modern small house; owner leaving the district; about £2,000 required; cash sale; Optics could be developed; adequate lease; any suggestion. 117/22, Office of this Paper.

UTH WALES Colliery District.—Branch Business for Sale; neglected; takings £22 per week (no side-lines), under qualified management; easily doubled by qualified man taking £1; 12 years' good lease; rent £45; small house; heavily stocked; splendidly fitted; for immediate sale; will accept nearest to £700; banker's reference essential. "Wales," 116/8, Office of this Paper.

SSEX.—For Sale, Chemist's Business occupying good position in main street of large town. Apply for full particulars to 509, Office of this Paper.

OCKPORT.—One of the oldest established Shops; busy thoroughfare; large turnover; modern freehold premises; fitted and stocked; as going concern. Further particulars to Ford & Rimington, 59 Wellington Road South, Stockport.

ORKS.—West Riding city, main road, near centre. Old established Chemist's; profitable trade, which can be considerably increased; easily managed; lock-up shop; average 3 years £1,500, net profit £285; price, £900 or near offer. In Durham, good-class Suburban, in prosperous town; Kodak Agency, Medic. Wines; average turnover £2,000; beautifully fitted; price £1,200, and property £1,300. Marsden, Mists' Valuer, 44 Sholebroke View, Leeds.

HEMIST'S and Optician's; thoroughly sound; long established, centre important market town; owner retiring; lease; low rent; all fittings; heavy stock; price about £100. Agent, Fred Wickenden, Ashford, Kent.

UG Stores, Somerset, large and popular seaside resort; lock-up shop; main road; new stock, optional; splendid line for Pharmaceutical Chemist; rent moderate; 10 years' lease, with fixtures and fittings; price, inclusive, £400. 114/27, Office of this Paper.

GHT Retail, Dispensing, Photographic Business; main street good Monmouthshire town; large lock-up, double-fronted shop and rooms; good fittings; well stocked; rent £50 (with 10 more); takings £25 weekly; capable expansion; N.H.I. Optics can be added; sell valuation only; part purchase can be paid later by arrangement. 115/37, Office of this Paper.

OLD-ESTABLISHED Wholesale and Manufacturing Druggist's Business for Sale, as carried on for many years past by Davies, Sons & Co. (Derby), Ltd., together with the freehold premises, plant, stock and valuable connection. For further particulars apply Mellors, Basden & Mellors, Chartered Accountants, Nottingham.

OWNER retiring (Midlands).—Old-established Dispensing and Photographic Business (Kodak Agency), with Branch, for Sale; combined returns between £6,000 and £7,000 per annum, increasing, at good profits; properties can be purchased; books kept by chartered accountants, and balance-sheets available; principals only; bankers' references. Reply to "Sellers," 115/35, Office of this Paper.

£100, goodwill and valuation of stock and fixtures, about £600, buys a wonderful business for a beginner or elderly man or woman Chemist; no opposition eight miles; in mining district which worked during recent strike; electric light, modern fixtures; lock-up; two shops, one let off at weekly rent 9s.; total rent £35 and rates £10; on lease, over three years unexpired; nearly 4,000 scripts annually, half insurance and half local doctor; established 18 years; must be sold as cannot supervise; population 2,500; in Salop; house available; returns over £1,000. 118/4, Office of this Paper.

£100.—Midlands Villages, conducted by motor van, Drugs, Patents, Seeds, Cattle Medicines, and general Sundries; turnover £16 per week; big scope for prescribing; established four years; no opposition; stock at valuation; personal introduction to every customer; living accommodation in country 1 mile from station. 117/19, Office of this Paper.

£650 WILL buy outright well-fitted and completely stocked Pharmacy in densely populated area, London; low inclusive rental; long lease; opportunity for sub-letting to Dentist; excellent proposition for go-ahead man. Apply P.C.B. 85/13, Office of this Paper.

BUSINESSES WANTED.

ADVERTISER requires a Business, light Retail, with room for improvement; part cash down and rest by instalments; seaside preferred, or would take entire control with view to purchase. 115/26, Office of this Paper.

CASH waiting for genuine Business in the principal shopping centre of any industrial town with population of 30,000 or over; must bear strictest investigation. Replies (in confidence) to 114/18, Office of this Paper.

CHEMIST desires Business in South of England, either a seaside town with good general trade, or inland business with Panel, etc.; neglected one would suit if scope for increase; no Optics; living accommodation not essential; cash up to £1,500. Particulars of lease, stock and fixtures, turnover and profit (three years). 116/7, Office of this Paper.

IMPORTANT.—Wanted, good-class Business; premises must be large, modern, with good living accommodation, well situated in shopping area; frontage at least 12 ft.; healthy locality. Replies only entertained which give fullest details of premises, etc., which will be treated confidentially. Note.—A reward of £20 is offered for suggestion (if acted on) of suitable premises with opening for new business. 114/19, Office of this Paper.

MESSRS. BERDOE & FISH are in immediate want of Businesses, and vendors will find it to their advantage to correspond with us, we having at the present time a large number of genuine cash buyers with from £700 to £4,000 at command, and ready to take over at once; private registers kept, and strict privacy assured. Valuation Offices: 41 Argyle Square, King's Cross, W.C.1.

NEGLECTED or small Business in or near London; cash in hand; ready to take over; Managership with view to succession not objected to. Boulton, 70 Marsham Street, Westminster, S.W.

PHARMACIST, 27, seeks position with view to succession in good middle-class Business; no Optics; sound references; cash available; turnover round about £2,500; London district. Full particulars (in confidence) to "Hyoscine," 114/28, Office of this Paper.

PARTNERSHIPS.

ADVERTISER is prepared to consider Partnership in suitable business Liverpool or Wirral districts, with view to ultimate succession; capital available; qualified; highest credentials; dispensing, book-keeping, counter, photographic; interview in Liverpool. In confidence to 115/20, Office of this Paper.

MANAGING Partnership desired by Chemist, 43; first-class experience in management of businesses; or would buy small Business with scope; accommodation necessary over business. Apply "Sapiens," 113/18, Office of this Paper.

PREMISES TO LET.

EASTBOURNE.—A particularly fine opening for a Chemist in one of the finest central shopping positions of this well-to-do town; practically no competition; premises adjoining are in occupation of leading restaurateurs, furriers and costumiers, while overhead is a block of 25 spacious residential flats; a long lease will be granted on a bright lofty shop at a moderate rent to an approved tenant. Full particulars of Hillier, Parker, May & Rowden, 27 Maddox Street, W.1.

SITUATIONS OPEN.

RETAIL.

[HOME.]

BIRMINGHAM.—Qualified Manager required at once for branch; permanent position for a capable man. Apply, stating age, salary required, experience, and if possible send photograph, to 114/15, Office of this Paper.

BIRMINGHAM.—Dispenser or Junior for small Pharmacy in working-class neighbourhood, near centre. Full particulars (by letter) to A. W. Brown, Chemist, 53 Ashted Row.

BRIGHTON.—Smart Junior Assistant (male), with good Dispensing experience, in first-class business. Apply, with all particulars and salary required, to Watts, 114 Church Road, Hove.

BRISTOL.—A young, gentlemanly, well-educated Assistant wanted at once, accustomed to high-class business; knowledge of Window Dressing, Photography, and Counter Work; opportunity for good experience; state age, experience and salary. Clark & Wheeler, Queen's Road, Bristol.

DEWSBURY.—A good qualified Assistant wanted, or an experienced unqualified Assistant considered. Apply, giving particulars and salary required, Gutteridge, Chemist, Dewsbury.

HAYLING ISLAND.—Wanted, at once, young unqualified Assistant for good class Light Retail; knowledge of Photography essential, Window Dresser; state full particulars and salary required (indoors); comfortable home for energetic young man. P. J. Brown, Hayling Island.

LONDON.—Qualified Assistant, with experience of N.H.I. Dispensing; middle-class trade; another assistant kept. Apply, with full particulars, giving experience, names of references, date disengaged, age, and salary expected. Apply (letter only), "Pharmacist," 37 Sydney Road, Stoke Newington, N.16.

LONDON, E.1.—Qualified Assistant (young) required for N.H.I. and Relief; good salary to the right man. Maby & Co., Ltd., 1 King David Lane, London.

LONDON, S.E.—Wanted, a Junior Assistant (outdoors); must be a good Dispenser and Counterman, with knowledge of Photography. Apply by letter, stating full particulars, age, height, experience, salary required and when disengaged, to T. W. Rumsey & Son, 535 Lordship Lane, S.E.22.

LONDON, S.E.—Gentlemanly Assistant required for a good-class Pharmacy; must be a good Counterman and Dispenser, and able to assist with Optics (and Refraction). Apply by letter, stating age, experience, salary required, and when disengaged, to 116/35, Office of this Paper.

LONDON, S.W. SUBURB.—Qualified Chemist required; good Window-dresser and knowledge of Photography; comfortable berth for a conscientious worker. State age and salary, etc., to 116/16, Office of this Paper.

MANCHESTER DISTRICT.—Qualified wanted to supervise; light duties; comfortable berth; suit elderly gent.; also young qualified wanted. State particulars and salary, which must be moderate. 117/12, Office of this Paper.

SHEFFIELD.—Junior for high-class Retail; centre of city; good Salesman. State age, height, salary, and when disengaged, fullest particulars in first letter, with photo if possible, to Mr. Austen, c/o Newsholmes, Ltd., 27 High Street, Sheffield.

SOUTH COAST.—Manager required for Branch at an early date; experienced lady might be suitable. Full particulars and salary required to "Aquarius," 115/27, Office of this Paper.

APPRENTICE required for S.E. working-class business; one who prepared to make himself generally useful; usual hours; time can be arranged for study. Apply by letter to "Chemist," 66 Bromfelde Road, Clapham, S.W.4.

CHEMIST-OPTICIAN required for a general Pharmacy business as a Managing Assistant; must hold both qualifications, capable of taking charge, and of the Optical Department entirely; married; free modern house; commission on net profits of optics; interview. State salary required and usual particulars to H. E. Clement, Chemist, Hampton Hill, Middlesex.

ASSISTANT, unqualified, lady or gentleman, required for good-class Retail and Dispensing Business; outdoor capable Dispenser, with Counter experience. Give particulars of age, references and salary required, and when at liberty to C. Gilling, Chemist, Sunningdale, Berks.

COMPETENT Assistant required for middle-class family business in North Kent district; experience in Dispensing, Window-dressing and Counter work essential; knowledge of Photography an advantage. Please give full details, including age, height, salary required, and when disengaged. 116/Office of this Paper.

COMPETENT young Assistant for N.H.I. Dispensing in general Retail; E.1 district; main road. State salary expected and all particulars. 117/21, Office of this Paper.

DISPENSER required urgently by a Doctor near Victoria Docks, E., for morning and evening surgery. State age and experience to P.C.B. 85/4, Office of this Paper.

ELDERLY qualified Dispenser for N.H.I.; comfortable berth in London suburb. Please state salary and usual particulars to 115/3, Office of this Paper.

ENERGETIC young married Manager wanted; salary guaranteed £4 12s. 6d. and small but comfortable living accommodation; returns and salary should quickly consider increase. "E. P.," 96/304, Office of this Paper.

JUNIOR or Improver; either sex; medium height; outdoor Dispensing, Stock and Counter. Applicants not answer in three days respectfully declined. Full particulars and salary required, H. Temperton, 101 St. Mark's Road, Bush Hill Park, Enfield.

JUNIOR Assistant (or Improver) wanted, accustomed to good-class Retail and Dispensing business. Apply to A. Price, Pharmaceutical Chemist, 2 Guildford Road, Woking, Surrey.

JUNIOR, with good Dispensing experience and knowledge of Photography, required at once. Apply, stating age, height, salary required, and enclosing photograph, if possible, to Luxton, Chemist, Cowick Street, Exeter.

JUNIOR, unqualified (lady), for Retail, Dispensing and Photography outdoors. Apply, stating age, height, experience and salary required, and enclose photo if possible, to W. E. Tanner, Chesham, Chingford, London, E.4.

JUNIOR or Improver for Dispensing, Counter and Window-dressing; experience at D. & P. work an advantage. Please state age, experience and salary required. Mitchell, 6/8 Leam Road, Lewisham.

JUNIOR (lady), with experience at Counter, Dispensing and Book-keeping; not under 23. 117/16, Office of this Paper.

LADY Dispenser (Hall Certificate), 20-25, required for Chesham district, with some experience of Counter work. Reply with full particulars, to Parkes, Chemists, Ltd., 65 Harley Street, Chalk Farm, N.W.1.

LADY Pharmacist required for the South-West Lancashire Cheshire Joint (Prescriptions) Committee. The person appointed will act as technical adviser to the Committee, will supervise the pricing of prescriptions and undertake administrative duties connected therewith. Commencing salary £250 per annum. Applications, stating age, qualifications, experience, and date when at liberty to take up appointment, accompanied by copies of not more than three recent testimonials, to be sent, endorsed "Pharmacist," to the Secretary to the Committee, 55 Dale Street, Liverpool, not later than post on Tuesday, the 8th February, 1927.

LADY Pharmacist, young, required for good-class Dispensing business near London; easy hours; light duties. State particulars of experience, age, and salary required. 117/8, Office of this Paper.

MANAGER, qualified, accustomed to good-class family business; must be able to dress attractive windows. Apply with full particulars, to 96/308, Office of this Paper.

PHARMACIST-OPTICIAN required for high-class counter establishment near London; age 25/30; must hold both qualifications and be capable of taking charge of Optical Department. Send salary required, when disengaged, and other particulars, to E. T. Neathercoat, Church Street, Weybridge.

QUALIFIED Junior required; no Sunday or holiday duty. N.H.I. work. State age, experience and salary required. Wootton & Webb, Ltd., Laton, Beds.

QUALIFIED Superintendent; S.E. district, near City; daylight; state lowest terms. P.C.B. 85/11, Office of this Paper.

QUALIFIED man required for North-West London; middle-aged man preferred. Write P.C.B. 85/2, Office of this Paper.

SUPERINTENDENT-MANAGER.—Qualified man required to take charge of an up-to-date Pharmacy near London; educational opportunity to a man with ideas; must be a good Salesman, of good appearance and address, and a good Prescriber. State age, qualifications, salary required. 116/32, Office of this Paper.

ALFIED Assistant required, Glamorgan, 12 miles from Cardiff; colliery district; General Retail, with N.H.I. Dis. Full particulars, age, experience, and salary required. Office of this Paper.

ALFIED Assistant (lady or gentleman) required immediately; must be accustomed to Dispensing. Please particulars and salary required. Franklin Baird, Camdens, Hastings.

ALFIED—Thoroughly experienced Assistant required good-class Dispensing business, London, S.W.; comfort-manship for right man; interview (London) essential. Office of this Paper.

TED, an experienced male Assistant; good Dispenser, counterman and Window-dresser; outdoors. State age, and salary required, and enclose photo (to be returned), Arbottle, Chemist, Crwys Road, Cardiff.

TED, young Qualified Assistant, to commence February. All particulars first letter. Fields, Chemist, Beverley.

TED, capable young business man, unqualified, able to take complete control, Stock and Window-dressing, during several weeks; salary and commission; must be real live business getter; not afraid of work; references undeniable; salary; South. "Sale," 116/22, Office of this Paper.

TED, thoroughly competent qualified lady or gent. as Branch Manager; Manchester and district; age 25-40; 1 to good-class busy Counter trade, N.H.I. and Photo. Give full details of experience and ability; enclose photo; good opening to man of real ability. 96/305, Office of this Paper.

WHOLESALE.

ON AND SOUTH COAST—Well-known manufacturing firm requires the services of a keen, active Salesman to represent connection in South London and adjoining counties; given to one with previous experience of Packed Pharmaceuticals. Applicants should state definitely in first letter experience and salary required, and when available. Office of this Paper.

RIENCED Representative (young) wanted for Lancashire and Yorkshire districts; salary and commission. Give full particulars, to Robert Blackie, Manufacturing Chemist, 168 Tower Bridge Road, London, S.E.1.

DIATE—Two desirable openings with American Manufacturers now equipping European plant in London; U.S.A. and management, British Liability Company, require manager, also Laboratory Superintendent; compensation £300 per annum, medium investment in preference with suitable bonus ordinary, required; principals only. Princess Beautifiers, Ltd., 70 New Oxford Street, W.C.1.

MEDICAL PROPAGANDA.

LARGE Continental firm manufacturing high-class Synthetics requires experienced man calling on Doctors and Hospitals in London and provinces. Write, giving full particulars, remuneration wanted, to 96/299, Office of this Paper.

FACTURERS of Registered Brands India Rubber Hot Water Bottles require reliable Representatives carrying on competitive goods to call Retail Chemists and Irons in Lancashire, Cheshire, Midland Counties, North and Wales; commission basis only. 115/16, Office of this Paper.

ESTABLISHED firm in North of England are requiring experienced Representative having a sound connection with Doctors, Chemists and Institutions in Lancashire, part of Lancashire and Cumberland; salary, expenses and commission are payable 96/301, Office of this Paper, giving full particulars age, experience, etc.

PHARMACEUTICAL LABORATORY.—Wanted, young qualified Assistant for Manufacturing Laboratory. Apply 07, Office of this Paper by letter, marked "Northern," age, full details of experience, and wage required.

ESSENTATIVE required by old-established Manufacturing Pharmaceutical House with world-wide reputation introduction of Organo-therapeutical Specialities to the Profession in London; applicants must possess highest qualifications for the work involved, and their credentials open to strictest investigations. State full details and salary, which will be treated in the strictest confidence. 114/21, Office of this Paper.

ESSENTATIVES wanted for the most largely advertised and of Olive Oil in the world; gentlemen with existing ones preferred; generous commission; in Essex, Hertfordshire, Oxfordshire, Berkshire, and South Coast. Office of this Paper.

ESSENTATIVES, calling upon Chemists in the under-mentioned areas, required to push sales of Packed Pharmaceutical and Toilet Preparations for leading manufacturing (a) North Wales and counties immediately south of and Yorks; (b) Midland; (c) South Wales and West of. Only applications giving full details as to past experience territory, age, and remuneration required, will be considered. 96/306, Office of this Paper.

ROYAL Court Manufacturing Co., proprietors of "Suramas," "Tintona," etc., require two Representatives, (1) South Coast, (2) West of England and Wales; whole or part time; salary and commission; only men with excellent selling records and good connections are invited to apply. Full particulars (in confidence) to Manager, 4 Chapel Court, London, S.E.1.

VACANCIES on the outdoor staff of an old-established and progressive Perfumery House arise in the following territories: Lancashire and North Wales, Newcastle-on-Tyne, and adjacent counties. Applications from gentlemen capable of maintaining and extending an existing connection are invited. 96/303, Office of this Paper.

[COLONIAL, INDIA AND FOREIGN.]

INDIA—Qualified Assistant required for British Pharmacy; age 24-27 years; Scotsman preferred; splendid opportunity for ambitious man; duties to be divided jointly between Karachi and Lahore, six months at Karachi for summer season, commencing April, and winter season Lahore; four years' agreement; salary, first year, rs.300, Karachi (including board and quarters); rs.425 Lahore (outdoors); annual increments rs.25 per month; second-class passage paid out and home. Apply, with photo and copies of testimonials, "M. H.," 96/284, Office of this Paper.

MALAYA—Qualified Assistant, about 25, single, required by high-class establishment; liberal salary; good prospects; healthy climate; three years' agreement; passage paid out and home. Full particulars to 95/280, Office of this Paper.

SITUATIONS WANTED.

RETAIL.

[HOME.]

A.A.—ASSISTANT; male; unqualified; age 27; height 5 ft. 6 in.; 12 years' good all-round experience; reliable, conscientious and energetic; disengaged; salary 3 gns. weekly. 114/24, Office of this Paper.

A.A.—EXPERIENCED and energetic Assistant; Dispensing, Counter, Prescribing, Windows, Photography; Wales preferred. "Aspro," 33 Albert Square, S.W.8.

A BERTH where an enthusiastic and willing Assistant would be appreciated wanted by unqualified, 40, married, experienced, seeks progressive permanency; use to quick Cash Retail, Dispensing, Counter and Photo; can manage; active, willing worker; one who will study his employer's interests first; good references. Further particulars from "Unqualified," 115/38, Office of this Paper.

A CAPABLE and experienced qualified Chemist seeks post; disengaged; permanency or Locum. "Chemist," 85 Lancaster Road, Leytonstone, E.11.

A CAPABLE, experienced Assistant; accustomed to manage; single, middle-aged; unqualified. "Statim," c/o Miss Wills, The Buttery, Cliffe-at-Hoo, Kent.

A THOROUGH good experienced man wants engagement; Civil Service, Army and Navy Stores, Dispensing and Counter; West-End (all night man and 5 years management); 2 years as Locum; Surgical and Medical Appliance Fitter (6 years Medical Assistant); smart Salesman. "G.," c/o P. Skelly, 6 Herbrand Street, Russell Square, W.C.

A YOUNG Lady, Hall qualification, Hospital, high-class Dispensing and some Counter experience, desires post, London or suburbs. 116/33, Office of this Paper.

ADVERTISER, qualified, experienced business manager, desires comfortable post; good-class business; single; good address; references; moderate salary. "Rex," 117/6, Office of this Paper.

APPRENTICESHIP—Pharmacist (not in business) wishes to apprentice his son, Registered Student, careful and trustworthy, to Pharmacist who will impart a thorough training; Manchester district preferred. 116/9, Office of this Paper.

A S Manager, qualified; 15 years' West-End experience, Photography, Dispensing, Window-dressing, etc. "Chemist," 81-83 Arthur Road, Wimbledon Park.

A SSISTANT, unqualified; height 5 ft. 11 in.; age 26; eleven years' excellent experience in Dispensing, Counter, Prescribing, etc.; capable of taking charge if desired; thorough worker, Hants. or I.O.W. preferred. Kirby, Carisbrooke, Isle of Wight.

A SSISTANT; unqualified; active; all-round experience; single; first-class references. P.C.B. 84/18, Office of this Paper.

A SSISTANT, 20, 6 ft., good appearance, pleasing personality, 4 years' experience, Dispensing, Photography and Counter, desires post. E. M. Parkhouse, High Street, Calne.

A SSISTANT or Manager; age 42; height 5 ft. 8½ in.; quick and accurate Dispenser; able and persuasive Salesman; Photography; fluent French and Italian; City, West-End and suburban experience. "Energetic," 6 Avon View, The Bickerley, Ringwood, Hants.

A SSISTANT and Dispenser; all-round experience; temporary or permanent. "Statim," 72 Tremadoc Road, Clapham, S.W.4.

ASSISTANT (referred Part II), 22, requires situation, Dispensing and Counter, in London; South preferred. Evans, 31 Union Road, Clapham, S.W.4.

ASSISTANT, unqualified, 25, desires situation, Cardiff or district; 11 years' Pharmacy experience in South Wales, including Book-keeping and Photography. Banner, "Caswell," Sheldon Road, Chippenham, Wilts.

ASSISTANT; middle-age; wide experience; well recommended; nominal salary; with view to purchase; town or country; capital available; disengaged. "B.," Shelford, Beltiage Hill, Herne Bay, Kent.

ASSISTANT and experienced Dispenser desires whole- or part-time situation; moderate salary. "J.," 137 Sebert Road, Forest Gate.

ASSISTANT; all-round experience, London and provinces, 9 years; energetic; keen Counterman; able take charge; age 27. 116/4, Office of this Paper.

ASSISTANT or Manager, unqualified, desires change; good experience, Counter, Dispensing, Photography, Window-dressing; London preferred; excellent references. 116/29, Office of this Paper.

ASSISTANT; qualified; first-class experience in all branches of the business; Dispensing, Counter and Photographic; speaking French; London or near; now at liberty. 116/23, Office of this Paper.

ASSISTANT and Dispenser; good all-round experience; permanency; single; unqualified; middle-aged. 116/25, Office of this Paper.

CAPABLE ASSISTANT, unqualified, seeks engagement; 35, married; energetic, reliable; twelve years' good-class West End and Provincial experience; one with accommodation over shop preferred, but not essential; disengaged March. Andrews, 77 Alexandra Road, St. John's Wood, N.W.8.

CAPABLE qualified Manager, middle-age, desires permanency; energetic; trustworthy; undeniable references; expert Prescriber and business builder; thoroughly experienced; just disengaged; London only. "Salol," 104 First Avenue, Manor Park, E.12.

CARDIFF OR NEAR.—Part-time post required by lady (referred materia medica). Macarthur, Richmond Crescent, Cardiff.

CHEMIST offers service, evenings, busy hours, and Saturday, Sunday. H. C. Payne, 23 Highbury Grove, N.5.

CHEMIST; disengaged; middle-aged; varied experience, including 10 years self; Manager or Dispenser; small salary and commission. Barker, 93 St. Mark's Road, Leeds.

DISENGAGED, unqualified, Assistant seeks berth in London, S.W. district preferred; good Counterman, N.H.I. Dispensing, and Photography; age 27. "T.," 62 Queensmill Road, Fulham, S.W.6.

DISPENSER.—Unqualified, age 23, desires situation with Doctor or firm in London; good knowledge of Dressing and Therapeutics. 115/6, Office of this Paper.

DISPENSER (lady) desires post with Doctor or Chemist; experience with both; well recommended; knowledge of Book-keeping, French, German. "Advertiser," 16 Ebbfleet Road, Cricklewood, N.W.2.

DISPENSER; up-to-date in Surgery work; temporary or permanent; good references. 115/34, Office of this Paper.

ELDERLY man wants appointment as Dispenser or Manager; Surgeon's; Retail. Browne, 37 Palmer Road, Walthamstow.

HALL Dispenser, 8 years' experience, requires situation with Doctor or Chemist in Handsworth or near; good Saleswoman, accurate Dispenser. 1 Benson Road, Soho and Winson Green, Birmingham.

IMPROVER (lady), seeks vacancy; passed Part I; 3½ years' experience; S.E. London preferred. Jones, 17 Bellingham Road, Catford.

JUNIOR wants a good berth; Window-dresser, Dispenser, Photographic; used to busy routine. T. J. Hughes, 22 Townhill, Wrexham.

JUNIOR ASSISTANT, age 20, desires position, Dispensing and Counter; passed Part I; four years' good all-round experience; S.W. district preferred. 115/21, Office of this Paper.

LADY DISPENSER, Qualified (Hall), requires position. 114/37, Office of this Paper.

LADY Dispenser, not fully qualified, experienced, reliable, requires employment with Doctor or Chemist. Address 118/12, Office of this Paper.

LOCUM; qualified; 45; experienced in all departments; trade and personal references. "Pharmacist," 81-83 Arthur Road, S.W.19.

LOCUM, Manager; qualified; experienced; reliable; London or suburbs; disengaged. "F.," 119 Fairlands Avenue, Thornton Heath.

MANAGER, 26, desires change; experienced in all branches; London preferred, but not essential. P.C.B. 83/24, Office of this Paper.

MANAGER; qualified; 33; first-class experience, Pharmacy and Photography. A. W. Findlay, 62 Lillie Road, West Brompton, S.W.6.

MANCHESTER OR DISTRICT.—Junior requires post Saturday morning free; age 20; height, 5 ft. 11 in.; good, gentlemanly appearance; excellent experience in dispensing, Window, Counter and Photography; highest ref. 114/38, Office of this Paper.

MANCHESTER or suburb preferred.—As Manager Counter Assistant; experienced Saleswoman; 25; state salary. "M.P.S.," 51 Priesthills Road, Hull, Leicestershire.

M.P.S. desires Management (London), with view to partnership; 26; married; 10 years' first-class experience (one as manager) with present firm; living accommodation preferred; interview, Tuesdays, after 1. T. Taylor, 1 Glange, Maitland Park, N.W.3.

M.P.S., F.S.M.C., desires position of responsibility; lent experience; competent Refractionist, and Window-dresser; knowledge of Photography; used to management; kindly give some particulars. 115/36, Office of this Paper.

M.P.S. (32), Scotsman, seeks position as Manager; aggressive ideas; excellent experience; good man and Window-dresser; would consider position with succession. 116/15, Office of this Paper.

PART-TIME.—Part II student; good experience; Dispenser preferred. P.C.B. 85/6, Office of this Paper.

PHARMACIST, experienced, energetic, having recently passed of own business, seeks engagement; Locum, temporary or permanent; North or Midlands preferred. "M.P.S.," Rose Bank, Rawtenstall, Lancashire.

PHARMACIST; 33; 16 years' experience, Retail; Manager Assistant; terms reasonable; at liberty. Apply "Chen," 7 Brixton Hill, S.W.2, or phone 4104 Brixton.

PHARMACIST, F.S.M.C., F.I.O., seeks engagement; view London or South; own apparatus. 114/39, Office of this Paper.

P. H. DAVIES, Ph.C., March, Cambs., confidently recommends capable Junior for post in London. Apply "mas," c/o above.

QUALIFIED (23).—Good-class Dispensing and Counter experience, desires post in London or suburbs. "E. J. W.," 27 Marlborough Crescent, Bedford Park, W.

QUALIFIED (30), seeks permanent progressive situation Assistant or Manager in healthy district; good all experience. 114/16, Office of this Paper.

QUALIFIED; age 25; 6 ft.; 10 years' experience high and working-class businesses; knowledge of Toilet Photography; excellent Salesman and Dispenser; capable taking entire charge. Rutherford, 32 Tremadoc Road, Cl. S.W.4.

QUALIFIED, 25, requires position in good-class Pharmacy; 8½ years' good experience. Full particulars in first 115/32, Office of this Paper.

QUALIFIED, 24, desires post in North as Branch Manager; 7 years' good experience, including managership; or Yorks preferred, but not essential. 116/11, Office of this Paper.

QUALIFIED Dispenser (lady, Hall), free now; thoroughly experienced as Dispenser-Book-keeper, also as Resident Dispenser at Hospital. 118/6, Office of this Paper.

QUALIFIED, 30, tall, desires permanency; conscientious, courteous, trustworthy; London, provincial experience; highest references; abstainer; married; disengaged. "M. C.," 117/18, Office of this Paper.

UNQUALIFIED Chemist; 18 years' experience in high Dispensing; knowledge of Photography; age 35. S. 33 Ware Road, Hertford.

UNQUALIFIED; experienced; energetic; disengaged. "Radix," 30 St. Dunstan Street, Canterbury.

UNQUALIFIED, referred Part II, 22, desires temporary position until end March; high-class experience Dispensing, Counter, Photographic; London or S. Coast preferred. Office of this Paper.

YOUNG Lady, all-round Counter experience, requires position in London, suburbs. "Miss B.," 84 Verner Road, Sydenham, S.E.

WHOLESALE.

A LONDON Representative, many years' sound commercial own car, excellent credentials, desires first-class position; Drugs, Proprietary, Toilet. "Chemist," 116/2, Office of this Paper.

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ADVERTISER (22), six years' Retail experience, seeks position with Wholesale house with view to becoming representative; good worker; smart appearance. Armistage, Terrace, Horbury Bridge, near Wakefield, Yorks.

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turing, desires situation; good references; moderate salary.
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EXPERIENCED Traveller open to act for a firm of reputa-
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Aimboldon.

aged 19, had 4 years in Laboratory of Soap and Per-
fumery Manufacturer; good worker. L. Gatehouse, 5
Street, London, S.E.17.

ADVERTISER, 28, relinquishing own Retail Business, desires
S.S., post as Representative; first-class House essential;
only appearance and keen Salesman; excellent refer-
ences and commission basis. 117/2, Office of this Paper.

ADVERTISER desires position in Wholesale House, manu-
facturing or analytical branch; experienced in Drug analysis
and analytical work. 116/28, Office of this Paper.

ADVERTISER, disengaged after 20 years with one
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ADVERTISER, regularly calling leading London Stores,
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H., 55 Dalberg Road, S.W.2.

ADVERTISER, experienced, old-established connection
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Surrey, Sussex, Hampshire, Dorset; Surgical Dressings,
Dressings; on salary, commission, expenses. "M. P.,
Office of this Paper.

ADVERTISER, married, 32, educated, seeks progressive
door position, North London; Drugs, Sundries, Packed
salary and expenses; 15 years' experience, Salesman and
Lab.; highest references. "Chemal," 116/14, Office of
this Paper.

ADVERTISER, STATIONERY and Export Management.—Combined posi-
tion with moderate-sized firm required; qualified and
experienced Secretary; sound knowledge export trade; languages,
French, German, Portuguese; moderate salary;
114/29, Office of this Paper.

ADVERTISER, MEDICAL INSTRUMENTS.—Position required, Salesman or
seller; experienced fitter trusses, belts, etc.; Wholesale
11, P.C.B. 84/9, Office of this Paper.

ADVERTISER, TET Maker, 21, seeks situation; 3 years' compres-
sion; knowledge of pill-making. Situation with scope for
development required. 114/31, Office of this Paper.

ADVERTISER, TECHNICAL Chemist and Chemical Engineer (A.M.I.Chem.E.),
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construction of plants for the manufacture of pharmaceuticals,
dye-stuffs and intermediates, disinfectants, photo-
developers, rubber accelerators, synthetic perfumery
products, and metallurgical products, including the salts of
Bismuth, Magnesium, Strontium, etc., requires whole
consultative post as Manager, Chemist, or Chemical
Engineer to a firm making, using or desirous of extending their
works to make these or similar products. 88/5, Office
of this Paper.

ADVERTISER, 6 ft. height, Public School, 6 years Retail Chemist, part
qualification, desires to represent firm, preferably in
order to prove merit; best references. 116/12, Office of
this Paper.

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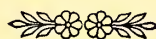
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